DOCUMENT RESUME

ED 387 135 IR 055 662

AUTHOR	Lehman, Bruce A.
TITLE	Intellectual Property and the National Information Infrastructure. The Report of the Working Group on Intellectual Property Rights.
INSTITUTION	Information Infrastructure Task Force, Washington, DC.
REPORT NO	ISBN-0-9648716-0-1
PUB DATE	Sep 95
NOTE	263p.
AVAILABLE FROM	"Intellectual Property and the NII," Office of Legislative and International Affairs, U.S. Patent and Trademark Office, Box 4, Washington, DC 20231 (single copy, free).
PUB TYPE	Books (010) -- Legal/Legislative/Regulatory Materials (090) -- Reports - Evaluative/Feasibility (142)
EDRS PRICE	MF01/PC11 Plus Postage.
DESCRIPTORS	Civil Liberties; Computer Networks; *Copyrights; *Federal Legislation; Government Role; Information Networks; *Intellectual Property; Patents; Public Policy
IDENTIFIERS	*National Information Infrastructure

ABSTRACT

In February 1993, the Information Infrastructure Task Force (IITF) was formed to articulate and implement the Clinton Administration's vision for the National Information Infrastructure (NII). The Working Group on Intellectual Property Rights was established within the Information Policy Committee to examine the intellectual property implications of the NII and make recommendations on any appropriate changes to U.S. intellectual property law and policy. This report represents the Working Group's examination and analysis of each of the major areas of intellectual property law, and focuses primarily on copyright law and its implications and effectiveness in the context of the NII. The approach of this report is to discuss the application of the existing copyright law and to recommend only those changes that are essential to adapt the law to the needs of the global information society. By providing a generalized legal framework, based on the extensive analysis and discussion of the way in which the law has been and should be interpreted, the groundwork can be laid for the rapid and efficient development of the NII. To prepare this report, the Working Group drew upon expertise within the participating departments and agencies of the federal government, and received and considered views of the public. Intellectual property rights are discussed in terms of federal law, technology, and education, followed by the Working Groups recommendations. Appendices include: proposed legislation, statutory mark-up, and participating agencies. (MAS)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED 387 135

INTELLECTUAL PROPERTY AND THE NATIONAL INFORMATION INFRASTRUCTURE

THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS

BRUCE A. LEHMAN
Assistant Secretary of Commerce and
Commissioner of Patents and Trademarks
CHAIR

INFORMATION INFRASTRUCTURE TASK FORCE

RONALD H. BROWN
Secretary of Commerce
CHAIR

BEST COPY AVAILABLE

IROSS 6 of 2

INTELLECTUAL PROPERTY
AND THE
NATIONAL INFORMATION INFRASTRUCTURE

THE REPORT OF THE WORKING GROUP ON INTELLECTUAL PROPERTY RIGHTS

BRUCE A. LEHMAN
Assistant Secretary of Commerce and
Commissioner of Patents and Trademarks
CHAIR

INFORMATION INFRASTRUCTURE TASK FORCE

RONALD H. BROWN
Secretary of Commerce
CHAIR

SEPTEMBER 1995

Single copies of this Report may be obtained, free of charge, by sending a written request to:

"Intellectual Property and the NII"
c/o Terri A. Southwick, Attorney-Advisor
Office of Legislative and International Affairs
U.S. Patent and Trademark Office
Box 4
Washington, D.C. 20231

Copies will also be available from the IITF Bulletin Board. The Bulletin Board can be accessed through the Internet by pointing the Gopher Client to iitf.doc.gov or by telnet to iitf.doc.gov (log in as gopher). The Bulletin Board is also accessible at 202-501-1920 using a personal computer and a modem.

Library of Congress Cataloging-in-Publication Data

United States. Information Infrastructure Task Force. Working Group on Intellectual Property Rights.
Intellectual Property and the National Information Infrastructure: The Report of the Working Group on Intellectual Property Rights / Bruce A. Lehman, Chair.
1. Intellectual property -- United States. 2. Copyright -- United States. 3. Information superhighway -- United States. 4. Information technology -- United States. I. Lehman, Bruce A. II. Title.
KF2979.U55 1995
346.7304'8--dc20
[347.30648]

ISBN 0-9648716-0-1

TABLE OF CONTENTS

INTRODUCTION 1

BACKGROUND 7

I. LAW 19

A. COPYRIGHT 19
1. Purpose of Copyright Law 19
2. Subject Matter and Scope of Protection 23
a. Eligibility for Protection 23
b. Published and Unpublished Works 28
c. Works Not Protected 32
d. Categories of Protectible Works 35
3. Copyright Ownership 45
a. Transfer of Ownership 47
b. Licensing 49
c. On-Line Transactions 53
4. Term of Protection 59
5. Notice, Deposit and Registration 60
6. Exclusive Rights 63
a. The Right to Reproduce the Work 64
b. The Right to Prepare Derivative Works 66
c. The Right to Distribute Copies 67
d. The Right to Perform the Work Publicly 70
e. The Right to Display the Work Publicly 72
7. Limitations on Exclusive Rights 73
a. Fair Use 73
b. Library Exemptions 84
c. First Sale Doctrine 90
d. Educational Use Exemptions 95
e. Other Limitations 96
8. Copyright Infringement 100
a. General 100
b. Infringing Importation 107
c. Contributory and Vicarious Liability 109
d. On-Line Service Provider Liability 114
e. Civil Remedies 124
f. Criminal Offenses 126
g. Defenses 128
9. International Implications 130
a. Background 130
b. International Framework 132
c. International Treaties and Agreements 135
d. Copyright Compared to Authors' Rights 139

e. National Treatment 140
f. Private Copying Royalty Systems 144
g. Moral Rights 145
h. Conflict of Laws 147
i. Harmonization of International Systems 147
B. PATENT 155
1. Patentability Determinations 162
2. Infringement Determinations 165
3. Patentability of Software 166
C. TRADEMARK 168
D. TRADE SECRET 173

II. TECHNOLOGY 177

A. CONTENT SECURITY AND USER ACCESS NEEDS 178
B. THE INTERNET EXPERIENCE 179
C. ACCESS AND USE TECHNOLOGICAL CONTROLS 183
1. Server and File Level Controls 183
2. Encryption 185
3. Digital Signatures 187
4. Steganography 188
D. CONTROLLING USE OF PROTECTED WORKS 189
E. MANAGING RIGHTS IN PROTECTED WORKS 191
F. ENCRYPTION EXPORT CONTROL 194
G. DEVELOPMENT OF STANDARDS 197

III. EDUCATION 201

A. BACKGROUND 201
B. COPYRIGHT AWARENESS CAMPAIGN 203

IV. RECOMMENDATIONS 211

A. COPYRIGHT 211
1. The Transmission of Copies and Phonorecords 213
a. The Distribution Right 213
b. Related Definitional Amendments 217
c. The Importation Provisions 221
2. Public Performance Right for Sound Recordings 221
3. Library Exemptions 225
4. Reproduction for the Visually Impaired 227
5. Criminal Offenses 228
6. Technological Protection 230
7. Copyright Management Information 235
B. PATENT 236
C. TRADEMARK 237

APPENDICES

INTRODUCTION

In February 1993, President Clinton formed the Information Infrastructure Task Force (IITF) to articulate and implement the Administration's vision for the National Information Infrastructure (NII). The IITF is chaired by Secretary of Commerce Ronald H. Brown and consists of high-level representatives of the Federal agencies that play a role in advancing the development and application of information technologies. Guided by the principles for government action described in *NII Agenda for Action*[1] and *GII Agenda for Cooperation*,[2] the participating agencies are working with the private sector, public interest groups, Congress, and State and local governments to develop comprehensive telecommunications and information policies and programs that will promote the development of the NII and best meet the country's needs.

To drive these efforts, the IITF is organized into three committees: the Telecommunications Policy Committee, which formulates Administration positions on relevant telecommunications issues; the Committee on Applications and Technology, which coordinates Administration efforts to develop, demonstrate and promote applications of information technologies in key areas; and the Information Policy Committee, which addresses critical information policy issues that must be dealt with if the NII is to be fully deployed and utilized. In addition, the IITF established a Security Issues Forum to assess the security needs and concerns of users, service providers, information providers, State and local governments and others. Finally, the U.S. Advisory Council on the National Information

---

1 Information Infrastructure Task Force, National Telecommunications and Information Administration, *National Information Infrastructure: Agenda for Action* (Sept. 1993).

2 Information Infrastructure Task Force, *Global Information Infrastructure: Agenda for Cooperation* (Feb. 1995).

Infrastructure (NII Advisory Council) was established within the Department of Commerce to advise the Secretary of Commerce on a national strategy for promoting the development of the NII.[3]

The Working Group on Intellectual Property Rights, which is chaired by Assistant Secretary of Commerce and Commissioner of Patents and Trademarks Bruce A. Lehman, was established within the Information Policy Committee to examine the intellectual property implications of the NII and make recommendations on any appropriate changes to U.S. intellectual property law and policy.[4]

This Report represents the Working Group's examination and analysis of each of the major areas of intellectual property law, focusing primarily on copyright law and its application and effectiveness in the context of the NII.[5] The approach of this Report is to discuss the application of the existing copyright law and to recommend only those changes that are essential to adapt the law to the needs of the global information society.[6] By providing a

---

[3] *See* Exec. Order No. 12,864, 3 C.F.R. 634 (1993).

[4] In the course of its work, the Working Group identified issues in other areas of jurisprudence, such as defamation and obscenity, which will be considered separately by the Information Policy Committee.

[5] The "National Information Infrastructure," as it is discussed in this Report, encompasses digital, interactive services now available, such as the Internet, as well as those contemplated for the future. To make the analyses more concrete, however, the Working Group has, in many instances, evaluated the intellectual property implications of activity on the Internet, the superstructure whose protocols and rules effectively create (or permit the creation of) a "network of networks." This reflects neither an endorsement of the Internet nor a derogation of any other existing or proposed network or service that may be available via the NII, but, rather, an acknowledgment that a currently functioning structure lends itself more readily to legal analysis than a hypothetical construct based on future developments.

[6] Because of the legal nature of the subject, this Report uses certain words and phrases that may be unfamiliar to some readers or that do not have their ordinary meaning when used in the context of intellectual property law. The

generalized legal framework, based on the extensive analysis and discussion of the way in which the law has been and should be interpreted, we can lay the groundwork for the rapid and efficient development of the NII.

To prepare this Report, the Working Group drew upon expertise within the participating departments and agencies of the Federal government.[7] In addition, the Working Group received and considered views of the public, including those of the NII Advisory Council.

The Working Group held a public hearing in November 1993, at which 30 witnesses testified.[8] The Working Group also solicited written comments and received some 70 statements during a public comment period which closed on December 10, 1993.[9] Following its review of the public comments and analysis of the issues, the Working Group released a preliminary draft of its report ("Green Paper") on July 7, 1994.[10] The Working Group issued the report in preliminary draft form to ensure broad dissemination and ample opportunity for public comment prior to making final recommendations and issuing this Report. Thousands of copies of the Green Paper were

---

Working Group has attempted to identify these terms of art and provide their legal definitions. Further, every attempt has been made to present trademarks that appear in the Report with initial capital letters. However, not all terms appearing with initial capital letters in the Report are trademarks. Where a question may exist regarding whether a term may be or is a trademark, the use of such term in the Report does not constitute any position regarding the trademark status of the term.

7 *See* list of Working Group participants *infra* Appendix 3.

8 *See* Request for Comments on Intellectual Property Issues Involved in the National Information Infrastructure Initiative, 58 Fed. Reg. 53,917 (Oct. 19, 1993).

9 *See id.*

10 *See* Information Infrastructure Task Force, Working Group on Intellectual Property Rights, *Intellectual Property and the National Information Infrastructure: A Preliminary Draft of the Report of the Working Group on Intellectual Property Rights* (July 1994).

distributed in paper form as well as electronically via the IITF Bulletin Board.[11]

Following the release of the Green Paper, the Working Group heard testimony from the public in four days of hearings in Chicago, Los Angeles and Washington, D.C., in September 1994.[12] In addition, more than 1,500 pages of written comments on the Green Paper and reply comments were filed, in paper form and through the Internet, by more than 150 individuals and organizations -- representing more than 425,000 members of the public -- during the comment period, which extended over four months.[13]

The Working Group convened a Conference on Fair Use (CONFU) to bring together copyright owner and user interests to discuss fair use issues and, if possible, to develop guidelines for uses of copyrighted works by librarians and educators. Some 60 interest groups are participants in the

---

[11] The IITF Bulletin Board can be accessed through the Internet by pointing the Gopher Client to iitf.doc.gov or by telnet to iitf.doc.gov (log in as gopher). The Bulletin Board is also accessible at 202-501-1920 using a personal computer and a telephone modem.

[12] The public hearing in Chicago was held on September 14, 1994, at the University of Chicago. The hearing in Los Angeles was held on September 16, 1994, at the University of California at Los Angeles. The hearings in Washington, D.C., were held on September 22 and 23, 1994, in the Andrew W. Mellon Auditorium. *See* Notice of Hearings and Request for Comments on Preliminary Draft of the Report of the Working Group on Intellectual Property Rights, 59 Fed. Reg. 42,819 (Aug. 19, 1994). Transcripts of the public hearings may be obtained by writing the U.S. Patent and Trademark Office, Office of Legislative and International Affairs, Box 4, Washington, D.C., 20231. The transcripts are also available on the IITF Bulletin Board. *See supra* note 11.

[13] *See* Notice of Hearings and Request for Comments on Preliminary Draft of the Report of the Working Group on Intellectual Property Rights, 59 Fed. Reg. 42,819 (Aug. 19, 1994); Extension of Deadline for Comments on Preliminary Draft of the Report of the Working Group on Intellectual Property Rights, 59 Fed. Reg. 50,222 (Oct. 3, 1994). Comments received are available for public inspection at the Scientific and Technical Information Center of the U.S. Patent and Trademark Office, Room 2CO1, Crystal Plaza 34, 2021 Jefferson Davis Highway, Arlington, Virginia, between the hours of 9 a.m. and 4 p.m., Monday through Friday.

Conference and have been meeting regularly since September 1994 in sessions that are open to the public. The Working Group also kicked off a Copyright Awareness Campaign (CAC) in March 1995. Approximately 40 participating individuals and organizations are coordinating their educational efforts and joining with the Working Group and the Department of Education to raise public awareness of copyright. Meetings of the Campaign are also open to the public.

Interested parties had numerous opportunities to submit their views on the intellectual property implications of the development and use of the NII and on the Working Group's Green Paper, including its preliminary findings and recommendations. The open process instituted by the Working Group resulted in a well-developed, voluminous record indicating the views of a wide variety of interested parties, including various electronic industries, service providers, the academic, research, library and legal communities, and individual creators, copyright owners and users, as well as the computer software, motion picture, music, broadcasting, publishing and other information and entertainment industries.

The special intellectual property concerns and issues raised by the development and use of the NII are the subject of this Report.[14] It does not, however, provide all of the answers. It may not even present all of the questions. There is much that we do not -- and cannot -- now know about how the NII will develop. Technology is advancing at such an incredible pace that issues will certainly continue to arise in the future, perhaps demanding more comprehensive legislation. However, because there is much

---

[14] This Report does not attempt to address all existing intellectual property issues. For instance, current debates over protection of the design of useful articles and whether or to what extent certain aspects of computer programs are or should be protected under copyright law are not covered by this Report. Likewise, certain patent issues, such as pre-grant publication and reexamination, are not addressed.

that we do know, the fact that future developments will raise additional issues not currently ripe should not deter us from addressing those that are.[15]

---

[15] In the process of preparing this Report, the Working Group constantly received and evaluated information concerning a large variety of technological and other developments that bear on the NII and intellectual property rights in works distributed thereon. In April 1995, the Working Group was compelled to place the Report in concrete form, and, thus, to stop adjusting the text with respect to just-received news. As a result, the Working Group has elected to: (a) pose in some detail -- but not try to definitively answer -- certain questions, and (b) not discuss every possible technological development of which it recently became aware. We are confident that the legislative and political processes will offer the opportunity for additional comments from both the U.S. Government and interested parties.

BACKGROUND

Intellectual property is a subtle and esoteric area of the law that evolves in response to technological change.[16] Advances in technology particularly affect the operation and effectiveness of copyright law. Changes in technology generate new industries and new methods for reproduction and dissemination of works of authorship, which may present new opportunities for authors, but also create additional challenges. Copyright law has had to respond to those challenges, from Gutenberg's moveable type printing press to digital audio recorders and everything in between -- photocopiers, radio, television, videocassette recorders, cable television and satellites.[17]

Uses of computer technology -- such as digitization -- and communications technology -- such as fiber optic cable -- have had an enormous impact on the creation, reproduction and dissemination of copyrighted works. The merger of computer and communications technology into an integrated information technology has made possible the development of the National Information Infrastructure which will generate both unprecedented challenges and important opportunities for the copyright marketplace.

An information infrastructure already exists, but it is not integrated into a whole. Telephones, televisions, radios, computers and fax machines are used every day to receive, store, process, perform, display and transmit data, text, voice, sound and images in homes and businesses throughout the country. Fiber optics, wires, cables,

---

[16] Supreme Court Justice Story found that copyright and patent cases come "nearer than any other class of cases belonging to forensic discussions, to what may be called the metaphysics of the law where the distinctions are, or at least may be, very subtile [sic] and refined, and, sometimes, almost evanescent." *See Folsom v. Marsh*, 9 F. Cas. 342, 344 (C.C.D. Mass. 1841) (No. 4,901).

[17] The original copyright law upon which our system was based (England's Statute of Anne) was a reaction to the invention of the printing press.

switches, routers, microwave networks, satellites and other communications technologies currently connect telephones, computers and fax machines. The NII of tomorrow, however, will be much more than these separate communications networks; it will integrate them into an advanced high-speed, interactive, broadband, digital communications system. Computers, telephones, televisions, radios, fax machines and more will be linked by the NII, and users will be able to communicate and interact with other computers, telephones, televisions, radios, fax machines and more -- all in digital form.[18]

The NII has tremendous potential to improve and enhance our lives. It can increase access to a greater amount and variety of information and entertainment resources that can be delivered quickly and economically from and to virtually anywhere in the world in the blink of an eye. For instance, hundreds of channels of "television" programming, thousands of musical recordings, and literally millions of "magazines" and "books" can be made available to homes and businesses across the United States and around the world.[19]

The NII can provide access to rich cultural resources around the world, transforming and expanding the scope and reach of the arts and humanities. It will provide opportunities for the development of new markets for cultural products. It can broaden our cultural experiences through diversity of content, and increase our understanding of other societies.

---

[18] These devices will be linked not only to each other (computer to computer, for example) but will also be cross-linked (computer to television set).

[19] The United States and other countries are working toward the development of an advanced Global Information Infrastructure (GII) that "will allow us to share information, to connect, and to communicate as a global community." And as that information moves through international channels, "[p]rotecting intellectual property is absolutely essential." *See* Remarks Prepared for Delivery by Vice President Al Gore at the International Telecommunications Union in Buenos Aires, Argentina (March 21, 1994).

The NII can support our education systems by, for example, linking students and educators in remote locations around the world. It can also improve the nation's health care systems by increasing public awareness of health issues, providing continuing education of health care professionals, and allowing patients to take a more active role in their own health care.

The NII can dramatically increase the opportunity for democratic participation in government. The Task Force has shown some of the potential in its work. For instance, the IITF Bulletin Board makes available copies of Task Force reports, testimony, speeches, meeting schedules and minutes, hearing notices, transcripts, and other documents related to the work of the Administration and opportunities for public participation.[20] The Task Force has also accepted comments from the public through the Internet and has conducted an on-line public conference.[21]

Individuals and entities that heretofore have been predominately consumers of works can now become authors and providers through the NII. It can put easier, more sophisticated communication and publishing tools in the hands of the public, increasing the ability to communicate with, and disseminate works of authorship to, others.

The NII can boost the ability of U.S. firms to compete and succeed in the global economy, thereby generating

---

[20] The IITF Bulletin Board can be accessed through the Internet or by use of a personal computer and modem. *See supra* note.11.

[21] Comments on the Green Paper were accepted at an Internet address. *See* Notice of Hearings and Request for Comments on Preliminary Draft of the Report of the Working Group on Intellectual Property Rights, 59 Fed. Reg. 42,819 (Aug. 19, 1994); Extension of Deadline for Comments on Preliminary Draft of the Report of the Working Group on Intellectual Property Rights, 59 Fed. Reg. 50,222 (Oct. 3, 1994). The IITF Universal Service Working Group and the Commerce Department's National Telecommunication and Information Administration hosted a "Virtual Public Conference" in November 1994 utilizing a series of electronic mail discussion groups. *See* 59 Fed. Reg. 55,081 (Nov. 3, 1994).

more jobs for Americans. It can spur economic growth. More than half of the U.S. work force is in information-based jobs, and the telecommunications and information sector is growing faster than any other sector of the U.S. economy. New job opportunities can be created in the processing, organizing, packaging and dissemination of the information and entertainment products flowing through the NII.

The NII can provide benefits to authors and consumers by reducing the time between creation and dissemination. It will open additional markets for authors. If authors choose to enter those new markets, it will provide a wider variety and greater number of choices for consumers, which should increase competition and reduce prices. The availability of these benefits is by no means assured, however. Authors are wary of entering this market because doing so exposes their works to a higher risk of piracy and other unauthorized uses than any of the traditional, current modes of dissemination. Therefore, authors may withhold their works from this environment. Further, even if authors choose not to expose their works to this more risky environment, the risk is not eliminated. Just one unauthorized uploading of a work onto a bulletin board, for instance -- unlike, perhaps, most single reproductions and distributions in the analog or print environment -- could have devastating effects on the market for the work.

Thus, the full potential of the NII will not be realized if the education, information and entertainment products protected by intellectual property laws are not protected effectively when disseminated via the NII. Creators and other owners of intellectual property rights will not be willing to put their interests at risk if appropriate systems -- both in the U.S. and internationally -- are not in place to permit them to set and enforce the terms and conditions under which their works are made available in the NII environment. Likewise, the public will not use the services available on the NII and generate the market necessary for

its success unless a wide variety of works are available under equitable and reasonable terms and conditions, and the integrity of those works is assured. All the computers, telephones, fax machines, scanners, cameras, keyboards, televisions, monitors, printers, switches, routers, wires, cables, networks and satellites in the world will not create a successful NII, if there is no *content*. What will drive the NII is the content moving through it.

Ensuring consumer access to and enjoyment of both copyrighted works and new technologies is an attainable goal, and recent experience has confirmed this.[22] For example, the introduction of digital audio tape recorders recently posed significant problems for copyright owners. Congress responded to the increased threat of rampant unauthorized use with legislation that incorporated both technological and legal measures to protect the interests of both consumers and copyright owners.[23]

---

[22] *See, e.g., Sony Corp. v. Universal City Studios, Inc.*, 464 U.S. 417, 430-31 nn. 11-12 (1984) (hereinafter *Sony*) (discussing significance of changes in technology and their effect on copyright law); *Final Report of the National Commission on New Technological Uses of Copyrighted Works* (hereinafter *CONTU Final Report*) at 3 (reporting about the issues raised by photocopiers and computers back in 1978, in language that is equally applicable today) (citations omitted):

> The ownership and control of information and the means of disseminating it are emerging as national and international policy issues. Concerns about the impact on individual freedom posed by the control of the flow of information are at the forefront of public debate. The adequacy of the legal structure to cope with the pace and rate of technological change frequently has been called into question.

[23] Congress enacted the Audio Home Recording Act of 1992, which combined legal and technological protection for sound recordings. *See* 17 U.S.C. § 1001 *et seq.* (Supp. V 1993). The Audio Home Recording Act requires a serial copy management system in all digital audio recording devices and digital audio interface devices imported, manufactured or distributed in the United States. Such a system allows unlimited first generation digital copying of sound recordings, but prevents the making of digital copies from copies. The Act prohibits the importation, manufacture or distribution of any device, or the offering or performance of any service, the primary purpose of which is to circumvent any program or circuit which implements a serial copy management

Advances in digital technology and the rapid development of electronic networks and other communications technologies raise the stakes considerably. Any two-dimensional work can readily be "digitized" -- *i.e.*, translated into a digital code (usually a series of zeros and ones). The work can then be stored and used in that digital form. This dramatically increases: the ease and speed with which a work can be reproduced; the quality of the copies (both the first and the hundredth "generation" are virtually identical); the ability to manipulate and change the work; and the speed with which copies (authorized and unauthorized) can be "delivered" to the public. Works also can be combined easily with other works into a single medium, such as a CD-ROM, which contributes to a blurring of the lines that typically divide types of works and the rights and limitations applicable thereto.

The establishment of high-speed, high-capacity electronic information systems makes it possible for one individual, with a few key strokes, to deliver perfect copies of digitized works to scores of other individuals -- or to upload a copy to a bulletin board or other service where thousands of individuals can download it or print unlimited "hard" copies. The emergence of integrated information technology is dramatically changing, and will continue to change, how people and businesses deal in and with information and entertainment products and services, and how works are created, reproduced, distributed, adapted, displayed, performed, owned, licensed, managed, presented, organized, sold, accessed, used and stored. This leads, understandably, to a call for adaptation of -- or change in -- the law.

---

system. The Act also establishes a royalty system through which importers and manufacturers of digital audio recording devices and digital audio recording media make royalty payments on each device or medium they distribute. Such payments are collected by the Copyright Office and distributed annually to record companies, performers, music publishers and songwriters.

Thomas Jefferson stated:

> I am not an advocate for frequent changes in laws and constitutions. But laws and institutions must go hand and hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat which fitted him when a boy . . . .[24]

Our task is to determine whether the coat still fits in this new information age. An effective intellectual property regime must (1) ensure that users have access to the broadest feasible variety of works by (2) recognizing the legitimate rights and commercial expectations of persons and entities whose works are used in the NII environment.

For more than two centuries, copyright law, with periodic amendment, has provided protection for an increasing variety of works of authorship. The most recent complete revision of the law -- The Copyright Act of 1976[25] -- was enacted in response to "significant changes in technology [that had] affected the operation of the copyright law."[26] The legislative history of the 1976 Act

---

[24] *See* Inscription at the Jefferson Memorial, Washington, D.C. As Secretary of State, Thomas Jefferson was the first head of the U.S. Patent Office.

[25] The Copyright Act of 1976, as amended, is codified at 17 U.S.C. § 101 *et seq.* (1988 & Supp. V 1993). Hereinafter, the Act is cited as "17 U.S.C. § __."

[26] *See* H.R. REP. NO. 1476, 94th Cong., 2d Sess. 47 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5659 (hereinafter HOUSE REPORT) ("During the past half century a wide range of new techniques for capturing and communicating printed matter, visual images, and recorded sounds have come into use, and the increasing use of information storage and retrieval devices, communications satellites, and laser technology promises even greater changes in the near

notes that those changes had "generated new industries and new methods for the reproduction and dissemination of copyrighted works, and the business relations between authors and users [had] evolved new patterns."[27]

We are once again faced with significant changes in technology that upset the balance that currently exists under the Copyright Act. Our goal is to maintain the existing balance.

Some assert that copyright protection should be reduced in the NII environment. The public wants information to be free and unencumbered on the NII, it is argued, and the law should reflect the public interest. Without doubt, this is a valid concern. Information *per se* should not be protected by copyright law -- nor is it. Facts and ideas from any work of authorship may be freely copied and distributed; the Copyright Act expressly excludes such information from the scope of the protection it accords.[28] The copyright law should also serve the public interest -- and it does. While, at first blush, it may appear to be in the public interest to reduce the protection granted works and to allow unfettered use by the public, such an analysis is incomplete. Protection of works of authorship provides the stimulus for creativity, thus leading to the availability of works of literature, culture, art and entertainment that the public desires and that form the backbone of our economy and political discourse. If these works are not protected, then the marketplace will not support their creation and dissemination, and the public will not receive the benefit of their existence or be able to have unrestricted use of the ideas and information they convey.

Others assert that technological advances justify reduced protection. Since computer networks now make

---

future.").

27 *See* HOUSE REPORT at 47, *reprinted in* 1976 U.S.C.C.A.N. 5660.

28 *See* 17 U.S.C. § 102(b); *see also* discussion *infra* pp. 32-34.

unauthorized reproduction, adaptation, distribution and other uses of protected works so incredibly easy, it is argued, the law should legitimize those uses or face widespread flouting. This argument is not valid. Technology makes many things possible. Computer networks can be and have been used to embezzle large sums of money and to commit other crimes. Yet, these acts are prohibited by law. Simply because a thing is possible does not mean that it should be condoned.

Finally, there are those who argue that intellectual property laws of any country are inapplicable to works on the NII or GII because all activity using these infrastructures takes place in "Cyberspace," a sovereignty unto itself that should be self-governed by its inhabitants, individuals who, it is suggested, will rely on their own ethics -- or "netiquette" -- to determine what uses of works, if any, are improper. First, this argument relies on the fantasy that users of the Internet, for instance, are somehow transported to "chat rooms" and other locations, such as virtual libraries. While such conceptualization helps to put in material terms what is considered rather abstract, activity on the Internet takes place neither in outer space nor in parallel, virtual locations. Satellite, broadcast, fax and telephone transmissions have not been thought to be outside the jurisdiction of the nations from which or to which they are sent. Computer network transmissions have no distinguishing characteristics warranting such other-world treatment. Further, such a legal free-for-all would transform the GII into a veritable copyright Dodge City. As enticing as this concept may seem to some users, it would hardly encourage creators to enter its confines.

Nonetheless, content providers are currently experimenting with a number of business models in the networked environment, and it is already clear that a wide variety of such models may coexist. Some content providers will choose not to enforce all -- or any -- of their rights; others may change their business practices. For instance, some newspaper publishers are selling individual articles

using electronic payment mechanisms, in addition to selling subscriptions and individual issues. Some software companies are making their "client" software freely available for individual use in an effort to increase the market share of their "server" software. Some hypermedia magazine publishers on the World Wide Web are choosing to give away their product but charge sponsors for advertising space. A number of information service providers are charging for the use of the search engines that add value to freely available public domain content.

Some content providers will not be motivated by any commercial considerations. For instance, certain scientific communities are working together to create archives of freely available electronic pre-prints on the Internet. The copyright law allows copyright owners to exercise the rights granted to them, to license their rights to others, or to give them away. Those creators who wish to dedicate their works to the public domain may, of course, do so notwithstanding the availability of protection under the Copyright Act. Nothing in the law prevents those who do not wish to claim copyright from waiving their rights and allowing unrestricted reproduction, distribution and other use of their works. Indeed, notices to that effect are not uncommon on the Internet.

The absence on the NII of copyrighted works for which authors do wish to exercise their rights -- fully or to some limited extent -- under the copyright law, of course, would not necessarily result in its demise. The Internet, for instance, could continue to serve as a communications tool and resource for Government, public domain and works of willing authors. However, unless the framework for legitimate commerce is preserved and adequate protection for copyrighted works is ensured, the vast communications network will not reach its full potential as a true, global marketplace. Copyright protection is not an obstacle in the way of the success of the NII; it is an essential component. Effective copyright protection is a fundamental way to promote the availability of works to the public.

Preserving the framework does not require, however, a dramatic increase in authors' rights, such as more limited or no further applicability of the fair use doctrine in the NII environment. Some have argued that because it may now be technically feasible to "meter" each use of a copyrighted work, and to charge a user a fee for the use, the concept of fair use has no place in the NII environment. They argue equally that other limitations on rights should be abolished or narrowed for similar reasons. The Working Group believes that weakening copyright owners' rights in the NII is not in the public interest; nor would a dramatic increase in their rights be justified.

With no more than minor clarification and limited amendment, the Copyright Act will provide the necessary balance of protection of rights -- and limitations on those rights -- to promote the progress of science and the useful arts.[29] Existing copyright law needs only the fine tuning that technological advances necessitate, in order to maintain the balance of the law in the face of onrushing technology. There must be, however, effort in three disciplines -- law, technology and education -- to successfully address the intellectual property issues raised by the development and use of the NII.

---

[29] The Working Group believes that no revision of the patent, trademark or trade secret law is warranted at this time. *See* discussion *infra* pp. 155-75, 236-38.

I. LAW

A. COPYRIGHT

1. PURPOSE OF COPYRIGHT LAW

The Constitution of the United States provides that Congress has the power to "promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries."[30] The framers of the Constitution did not discuss this clause at any length prior to or after its adoption.[31] The purpose of the clause was described in the Federalist Papers by James Madison:

> The utility of this power will scarcely be questioned. The copyright of authors has been solemnly adjudged, in Great Britain, to be a right of common law. The right to useful inventions seems with equal reason to belong to the inventors. The public good fully coincides in both cases with the claims of individuals.[32]

---

30 *See* U.S. CONST., art. I, § 8, cl. 8.

31 On August 18, 1787, James Madison submitted to the delegates to the Constitutional Convention a list of powers to be granted Congress, which included the power "To secure to literary authors their copyrights for a limited time" and "To encourage, by premiums and provisions, the advancement of useful knowledge and discoveries." At the same time, Charles Pinckney submitted a list which included the power "To grant patents for useful inventions" and "To secure to authors exclusive rights for a certain time." On September 5, the clause "To promote the progress of science and the useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries" was agreed to unanimously. On September 17, 1787, the draft was signed by the delegates to the convention with no substantive changes. *See Debates on the Adoption of the Federal Constitution* as reported by James Madison. The clause was finally ratified in its present form in 1788. George Washington signed the first copyright law on May 31, 1790.

32 THE FEDERALIST NO. 43 (James Madison).

The Constitution outlines both the goal that Congress may try to achieve (to promote the progress of science and useful arts) and the means by which they may accomplish it (by securing for limited times to authors and inventors the exclusive right to their respective writings and discoveries).[33] The Supreme Court has often spoken about the purpose of copyright:

> [I]t should not be forgotten that the Framers intended copyright itself to be the engine of free expression. By establishing a marketable right to the use of one's expression, copyright supplies the economic incentive to create and disseminate ideas.[34]
>
> We have often recognized the monopoly privileges that Congress has authorized, while "intended to motivate the creative activity of authors and inventors by the provision of a special reward," are limited in nature and must ultimately serve the public good.[35]
>
> The primary objective of copyright is not to reward the labor of authors, but "[t]o promote the Progress of Science and useful Arts." To this end, copyright assures authors the right in their original expression, but encourages others to build freely upon the ideas and information conveyed by a work.[36]

---

33 *Goldstein v. California*, 412 U.S. 546, 555 (1973).

34 *Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 558 (1985) (hereinafter *Harper & Row*). *See also id.* at 546 ("'monopoly created by copyright thus rewards the individual author in order to benefit the public'").

35 *Fogerty v. Fantasy, Inc.*, 114 S. Ct. 1023, 1029 (1994) (quoting *Sony*, *supra* note 22, at 429).

36 *Feist Publication, Inc. v. Rural Telephone Service Co.*, 499 U.S. 340, 349-50 (1991) (citations omitted) (hereinafter *Feist*).

> The economic philosophy behind the [Constitutional] clause . . . is the conviction that encouragement of individual effort by personal gain is the best way to advance the public welfare through the talents of authors and inventors . . . . Sacrificial days devoted to such creative activities deserve rewards commensurate with the services rendered.[37]

> The monopoly privileges that Congress may authorize are neither unlimited nor primarily designed to provide a special private benefit. Rather, the limited grant is a means by which an important public purpose may be achieved. It is intended to motivate the creative activity of authors . . . by the provision of a special reward, and to allow the public access to the products of their genius after the limited period of exclusive control has expired.[38]

> [C]opyright is intended to increase and not to impede the harvest of knowledge . . . . [T]he scheme established by the Copyright Act . . . foster[s] the original works that provide the seed and substance of this harvest. The rights conferred by copyright are designed to assure contributors to the store of knowledge a fair return for their labors.[39]

> The copyright law, like the patent statutes, makes reward to the owner a secondary consideration . . . . It is said that reward to the

---

37 *Mazer v. Stein*, 347 U.S. 201, 219 (1954).

38 *Sony*, *supra* note 22, at 429.

39 *Harper & Row*, *supra* note 34, at 545-46 (citing *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975)).

> author or artist serves to induce release to the public of the products of his creative genius.[40]

Copyright is "intended definitely to grant valuable, enforceable rights to authors . . . 'to afford greater encouragement to the production of literary works of lasting benefit to the world.'"[41] The purpose is not to reward the author, but the law does so to achieve its ultimate purpose -- "to induce release to the public of the products of his creative genius."[42] The "immediate effect" of the copyright law is that authors receive a "fair return for [their] creative labor"; however, the "ultimate aim is, by this incentive, to stimulate artistic creativity for the general public good."[43]

Congress also interpreted the clause when it enacted the Copyright Act of 1909:

> The enactment of copyright legislation by Congress under the terms of the Constitution is not based upon any natural right that the author has in his writings, . . . but upon the ground that the welfare of the public will be served and progress of science and useful arts will be promoted by securing to authors for limited periods the exclusive rights to their writings . . . .[44]

By granting authors exclusive rights, the authors receive the benefit of economic rewards and the public

---

40 *United States v. Paramount Pictures, Inc.*, 334 U.S. 131, 158 (1948).

41 *Washingtonian Publishing Co. v. Pearson*, 306 U.S. 30, 36 (1939).

42 *Id.*

43 *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151, 156 (1975).

44 H.R. REP. NO. 2222, 60th Cong., 2d Sess., 7 (1909) (report accompanying the Copyright Act of 1909, the first comprehensive revision of the copyright laws).

receives the benefit of literature, music and other creative works that might not otherwise be created or disseminated. The public also benefits from the limited scope and duration of the rights granted.[45] The free flow of ideas is promoted by the denial of protection for facts and ideas.[46] The granting of exclusive rights to the author "does not preclude others from using the ideas or information revealed by the author's work."[47]

While copyright law "ultimately serves the purpose of enriching the general public through access to creative works,"[48] copyright law imposes no obligation upon copyright owners to make their works available. While it is hoped that the potential economic benefits to doing so will induce them, copyright owners are not obligated to provide access to their works -- either during the term of protection or after. Hence, unpublished works never distributed to the public are granted as much (if not more) protection as published works. However, once an author publishes a work, copies of the work must be deposited with the Library of Congress for the benefit of the public.

2. SUBJECT MATTER AND SCOPE OF PROTECTION

a. ELIGIBILITY FOR PROTECTION

The subject matter eligible for protection under the Copyright Act is set forth in Section 102(a):

> Copyright protection subsists . . . in original works of authorship fixed in any tangible medium of expression, now known or later developed,

---

45 *See* discussion of term of protection *infra* pp. 59-60 and fair use and other limitations on an author's exclusive rights *infra* pp. 73-100.

46 *See* discussion of unprotected subject matter *infra* pp. 32-35.

47 HOUSE REPORT at 56, *reprinted in* 1976 U.S.C.C.A.N. 5669.

48 *Fogerty*, *supra* note 35, at 1030.

> from which they can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.[49]

From this provision, the courts have derived three basic requirements for copyright protection -- originality, creativity and fixation.[50]

The requirements of originality and creativity are derived from the statutory qualification that copyright protection extends only to "original works of authorship."[51] To be original, a work merely must be one of independent creation -- *i.e.*, not copied from another. There is no requirement that the work be novel (as in patent law), unique or ingenious. To be creative, there must only be a

---

[49] 17 U.S.C. § 102(a) (1988 & Supp. V 1993). The Copyright Act specifically excludes from protectible subject matter any "idea, procedure, process, system, method of operation, concept, principle or discovery" even if it meets the criteria for protection. *See* 17 U.S.C. § 102(b) (1988). The Copyright Act also preempts any grant of equivalent rights for works of authorship within the specified subject matter. Section 301 provides:

> On and after January 1, 1978, all legal or equitable rights that are equivalent to any of the exclusive rights within the general scope of copyright as specified by section 106 in works of authorship that are fixed in a tangible medium of expression and come within the subject matter of copyright as specified by sections 102 and 103, whether created before or after that date and whether published or unpublished, are governed exclusively by this title. Thereafter, no person is entitled to any such right or equivalent right in any such work under the common law or statutes of any State.

17 U.S.C. § 301(a) (1988).

[50] Many courts consider creativity to be an element of originality. For purposes of discussion, we examine originality and creativity as separate requirements.

[51] *See* 17 U.S.C. § 102(a) (1988 & Supp. V 1993). The statutory qualification is derived from Congress' limited Constitutional authority to grant copyright protection to "authors" for their "writings." *See* U.S. CONST., art. I, § 8, cl. 8.

modicum of creativity. The level required is exceedingly low; "even a slight amount will suffice."[52]

The final requirement for copyright protection is fixation in a tangible medium of expression. Protection attaches automatically to an eligible work of authorship the moment the work is sufficiently fixed.[53] A work is fixed "when its embodiment in a copy or phonorecord . . . is sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[54]

Congress provided considerable room for technological advances in the area of fixation by noting that the method of fixation in copies or phonorecords may be "now known or later developed."[55] The Copyright Act divides the possible media for fixation into "copies" and "phonorecords":

> "Copies" are material objects, other than phonorecords, in which a work is fixed by any method now known or later developed, and from which the work can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.[56]
>
> "Phonorecords" are material objects in which sounds, other than those accompanying a motion picture or other audiovisual work, are fixed by any method now known or later developed, and

---

52 *Feist*, *supra* note 36, at 345 ("vast majority of works make the grade quite easily, as they possess some creative spark").

53 Copyright protection literally begins when, for instance, the ink dries on the paper. There are no prerequisites, such as registration or affixation of a copyright notice, for obtaining or enjoying copyright protection.

54 17 U.S.C. § 101 (1988) (definition of "fixed").

55 *See* 17 U.S.C. § 102(a) (1988 & Supp. V 1993).

56 17 U.S.C. § 101 (1988) (definition of "copies").

> from which the sounds can be perceived, reproduced, or otherwise communicated, either directly or with the aid of a machine or device.[57]

According to the House Report accompanying the Copyright Act of 1976, Congress intended the terms "copies" and "phonorecords" to "comprise all of the material objects in which copyrightable works are capable of being fixed."[58]

The form of the fixation and the manner, method or medium used are virtually unlimited. A work may be fixed in "words, numbers, notes, sounds, pictures, or any other graphic or symbolic indicia"; may be embodied in a physical object in "written, printed, photographic, sculptural, punched, magnetic, or any other stable form"; and may be capable of perception either "directly or by means of any machine or device 'now known or later developed.'"[59]

In digital form, a work is generally recorded (fixed) as a sequence of binary digits (zeros and ones) using media specific encoding. This fits within the House Report's list of permissible manners of fixation.[60] Virtually all works also will be fixed in acceptable material objects -- *i.e.*, copies or phonorecords. For instance, floppy disks, compact discs (CDs), CD-ROMs, optical disks, compact discs-interactive (CD-Is), digital tape, and other digital storage devices are all stable forms in which works may be fixed and from which works may be perceived, reproduced or communicated by means of a machine or device.[61]

---

57 17 U.S.C. § 101 (1988) (definition of "phonorecords").

58 HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666-67. This Report generally uses the term "copy" or "copies" to refer to copies *and* phonorecords except in those instances where the distinction is relevant.

59 HOUSE REPORT at 52, *reprinted in* 1976 U.S.C.C.A.N. 5665-66.

60 *See id.*

61 *See, e.g., Stern Electronics, Inc. v. Kaufman*, 669 F.2d 852, 855 (2d Cir.

The question of whether interactive works are fixed (given the user's ability to constantly alter the sequence of the "action") has been resolved by the courts in the context of video games and should not present a new issue in the context of the NII. Such works are generally considered sufficiently fixed to qualify for protection.[62] The sufficiency of the fixation of works transmitted via the NII, however, where no copy or phonorecord has been made prior to the transmission, may not be so clear.

A transmission, in and of itself, is not a fixation. While a transmission may result in a fixation, a work is not fixed by virtue of the transmission alone. Therefore, "live" transmissions via the NII will not meet the fixation requirement, and will be unprotected by the Copyright Act, unless the work is being fixed at the same time as it is being transmitted.[63] The Copyright Act provides that a work "consisting of sounds, images, or both, that are being transmitted" meets the fixation requirement "if a fixation of the work is being made simultaneously with its transmission."[64] To obtain protection for a work under this "simultaneous fixation" provision, the simultaneous fixation of the transmitted work must itself qualify as a sufficient fixation.

1982) (putting work in "memory devices" of a computer "satisf[ies] the statutory requirement of a 'copy' in which the work is 'fixed'").

[62] *See, e.g., Atari Games Corp. v. Oman*, 888 F.2d 878 (D.C. Cir. 1989).

[63] Unfixed broadcasts are not within the subject matter of Federal copyright law. Therefore, protection of such works is not preempted and may be provided by state statutory or common law. *See* 17 U.S.C. § 301 (1988 & Supp. V 1993).

[64] *See* 17 U.S.C. § 101 (1988) (definition of "fixed"); *see also Baltimore Orioles, Inc. v. Major League Baseball Players Assoc.*, 805 F.2d 663, 668 (7th Cir. 1986) (telecasts that are videotaped at the same time that they are broadcast are fixed in tangible form), *cert. denied*, 480 U.S. 941 (1987); *National Football League v. McBee & Bruno's, Inc.*, 792 F.2d 726, 731-32 (8th Cir. 1986) ("the legislative history [of the Copyright Act] demonstrates a clear intent on the part of Congress to resolve, through the definition of 'fixation' . . ., the status of live broadcasts, using -- coincidentally but not insignificantly -- the example of a live football game"). It is understood that the "fixation" must be made or authorized by the author.

A simultaneous fixation (or any other fixation) meets the requirements if its embodiment in a copy or phonorecord is "sufficiently permanent or stable to permit it to be perceived, reproduced, or otherwise communicated for a period of more than transitory duration."[65] Works are not sufficiently fixed if they are "purely evanescent or transient" in nature, "such as those projected briefly on a screen, shown electronically on a television or cathode ray tube, or captured momentarily in the 'memory' of a computer."[66] Electronic network transmissions from one computer to another, such as e-mail, may only reside on each computer in RAM (random access memory), but that has been found to be sufficient fixation.[67]

b. PUBLISHED AND UNPUBLISHED WORKS

Historically, the concept of publication has been a major underpinning of copyright law. Under the dual system of protection which existed until the 1976 Copyright Act took effect, unpublished works were generally protected under state law. Published works, on the other hand, were protected under Federal copyright law.[68] On the effective date of the 1976 Act, Federal copyright protection became

---

[65] 17 U.S.C. § 101 (1988) (definition of "fixed").

[66] HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666-67.

[67] *See Advanced Computer Services of Michigan Inc. v. MAI Systems Corp.*, 845 F. Supp. 356, 363 (E.D. Va. 1994) (conclusion that program stored only in RAM is sufficiently fixed is confirmed, not refuted, by argument that it "disappears from RAM the instant the computer is turned off"; if power remains on (and the work remains in RAM) for only seconds or fractions of a second, "the resulting RAM representation of the program arguably would be too ephemeral to be considered 'fixed'"); *Triad Systems Corp. v. Southeastern Express Co.*, 1994 U.S. Dist. LEXIS 5390, at *15-19 (N.D. Cal. March 18, 1994) ("[C]opyright law is not so much concerned with the temporal 'duration' of a copy as it is with what that copy does, and what it is capable of doing, while it exists. 'Transitory duration' is a relative term that must be interpreted and applied in context.").

[68] *See Wheaton v. Peters*, 33 U.S. (1 Peters) 591, 662-63 (1834).

available for unpublished as well as published works.[69] The concept of publication thus lost its "all-embracing importance" as the threshold to Federal statutory protection.[70]

However, while the importance of publication has been reduced through amendment to the law (*e.g.*, granting Federal protection to unpublished works and removing the notice requirement for published works), the status of a work as either published or unpublished still has significance under the Copyright Act. For example:

- only works that are published in the United States are subject to mandatory deposit in the Library of Congress;[71]
- deposit requirements for registration with the Copyright Office differ depending on whether a work is published or unpublished;[72]

---

[69] *See* 17 U.S.C. § 104 (1988 & Supp. V 1993). Prior to 1978, certain unpublished works, particularly dramatic works and musical compositions, could obtain Federal copyright protection through registration with the Copyright Office. Since 1978, all otherwise eligible unpublished works are protected under Federal law. *See* 17 U.S.C. § 104(a) (1988 & Supp. V 1993).

[70] HOUSE REPORT at 129, *reprinted in* 1976 U.S.C.C.A.N. 5745.

[71] 17 U.S.C. § 407 (1988). "[T]he owner of copyright or of the exclusive right of publication in a work published in the United States shall deposit, within three months after the date of publication -- (1) two complete copies of the best edition; or (2) if the work is a sound recording, two complete phonorecords of the best edition, together with any printed or other visually perceptible material published with such phonorecords." 17 U.S.C. § 407(a) (1988). The deposit requirements are not conditions of copyright protection, but failure to deposit copies of a published work may subject the copyright owner to significant fines. *See* 17 U.S.C. § 407(a), (d) (1988).

[72] *See* 17 U.S.C. § 408(b) (1988) ("the material deposited for registration shall include -- (1) in the case of an unpublished work, one complete copy or phonorecord; (2) in the case of a published work, two complete copies or phonorecords of the best edition; (3) in the case of a work first published outside the United States, one complete copy or phonorecord as so published; (4) in the case of a contribution to a collective work, one complete copy or phonorecord of the best edition of the collective work").

- the scope of the fair use defense may be narrower for unpublished works;[73]
- unpublished works are eligible for protection without regard to the nationality or domicile of the author;[74]
- published works must bear a copyright notice if published before March 1, 1989;[75] and
- certain limitations on the exclusive rights of a copyright owner are applicable only to published works.[76]

The Copyright Act provides a definition of "publication" to draw the line between published and unpublished works:

> "Publication" is the distribution of copies or phonorecords of a work to the public by sale or

---

[73] The first factor of the fair use analysis -- the nature of the copyrighted work -- generally weighs against a finding of fair use if the work is unpublished. *See Harper & Row*, *supra* note 34. In 1992, Congress was prompted to amend Section 107 by the near determinative weight courts were giving to the unpublished nature of a work. *See* Act of October 24, 1992, Pub. L. 102-492, 1992 U.S.C.C.A.N. (106 Stat.) 3145 (adding to the fair use provisions, "The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.").

[74] 17 U.S.C. § 104(a) (1988 & Supp. V 1993); HOUSE REPORT at 58, *reprinted in* 1976 U.S.C.C.A.N. 5671 (Section 104(a) "imposes no qualification of nationality and domicile with respect to unpublished works"); *see also* 17 U.S.C. § 104(b) (1988 & Supp. V 1993) (national origin requirements for published works).

[75] 17 U.S.C. § 405 (1988 & Supp. V 1993). For such works, failure to include a copyright notice risks total loss of copyright protection. *See id.* Works published after March 1, 1989 (the effective date of the Berne Implementation Act) may (but are not required to) bear a copyright notice identifying the year of publication and the name of the copyright owner. *See* 17 U.S.C. § 401 (1988 & Supp. V 1993).

[76] *See generally* 17 U.S.C. §§ 107 - 120 (1988 & Supp. V 1993). *See, e.g.*, 17 U.S.C. § 118 (1988 & Supp. V 1993) (compulsory license is available for the use of certain published works in connection with noncommercial broadcasting).

> other transfer of ownership, or by rental, lease, or lending. The offering to distribute copies or phonorecords to a group of persons for purposes of further distribution, public performance, or public display, constitutes publication. A public performance or display of a work does not of itself constitute publication.[77]

The definition uses the language of Section 106 describing the exclusive right of distribution, and was intended to make clear that "any form of dissemination in which a material object does not change hands -- performances or displays on television, for example -- is not a publication no matter how many people are exposed to the work."[78] It also makes clear that the distribution must be "to the public."[79] In general, the definition continues principles that had evolved through case law under previous copyright laws,[80] including the doctrine of limited publication.[81] The doctrine was developed by courts to save works from losing copyright protection when copies of the work were only distributed to

---

77 17 U.S.C. § 101 (1988) (definition of "publication").

78 *See* HOUSE REPORT at 138, *reprinted in* 1976 U.S.C.C.A.N. 5754. *See also* discussion of transmissions and the "distribution" of copies *infra* pp. 67-69, 217-20.

79 *See, e.g., Salinger v. Random House, Inc.*, 811 F.2d 90 (2d Cir.), *supplemented, reh'g denied*, 818 F.2d 252, *cert. denied*, 484 U.S. 890 (1987) (copyrighted letters did not lose unpublished status by placement in library); *WPOW, Inc. v. MRLJ Enterprises*, 584 F. Supp. 132 (D.D.C. 1984) (filing of work with federal agency did not constitute publication).

80 *See* 1 M. NIMMER & D. NIMMER, NIMMER ON COPYRIGHT § 4.04 (1994) (hereinafter NIMMER ON COPYRIGHT). In a couple of aspects, the concept of publication was broadened to include the authorization of offers to distribute copies in a commercial setting and the distribution to certain middlemen, such as retailers, motion picture exhibitors and television stations. *See Paramount Pictures Corp. v. Rubinowitz*, 217 U.S.P.Q. 48, 50 (E.D.N.Y. 1981) (discussing evolution of definition of publication); *National Broadcasting Co., Inc. v. Sonneborn*, 630 F. Supp. 524, 532-33 (D. Conn. 1985).

81 *See* 1 NIMMER ON COPYRIGHT § 4.13[B]; *Kunycia v. Melville Realty Co. Inc.*, 755 F. Supp. 566, 574 (S.D.N.Y. 1990).

a restricted number of people and for a restricted purpose without a copyright notice.[82] Those works would not be considered distributed to the public (*i.e.*, published) and, therefore, not subject to the notice requirement. Although the notice requirement has been eliminated, and thus the most critical justification for the doctrine, the few cases dealing with publication since 1989 suggest that courts will continue to apply the doctrine of limited publication.[83]

c. WORKS NOT PROTECTED

Certain works and subject matter are expressly excluded from protection under the Copyright Act, regardless of their originality, creativity and fixation. Titles, names, short phrases, and slogans generally do not enjoy copyright protection under the Copyright Act.[84] Other material ineligible for copyright protection includes the

---

[82] *See White v. Kimmell*, 193 F.2d 744, 746-47 (9th Cir. 1952). Before the notice requirement was eliminated, the Copyright Act generally provided for the invalidation of the copyright in a work if copies of the work were distributed to the public, under the authority of the copyright owner, without a copyright notice. In virtually all instances where limited publication was applied, the distribution was noncommercial in nature.

[83] *See Academy of Motion Picture Arts and Sciences v. Creative House Promotions, Inc.*, 944 F.2d 1446, 1451-54 (9th Cir. 1991) (distribution of personalized Oscar statuettes to select group of distinguished artists constituted limited publication); *Lish v. Harper's Magazine Found.*, 807 F. Supp. 1090, 1102 (S.D.N.Y. 1992) (letter distributed to members of class remained unpublished).

[84] *See* 37 C.F.R. § 202.1(a) (1994); *see also, e.g., Takeall v. PepsiCo Inc.*, 29 U.S.P.Q.2d 1913, 1918 (4th Cir. 1993) (unpublished) (holding phrase "You Got the Right One, Uh-Huh" is not copyrightable and, thus, was not infringed by commercial using phrase "You Got the Right One Baby, Uh-Huh"). While short phrases may not be copyrightable standing alone, they may be protected as part of a larger, copyrighted work. *See, e.g., Dawn Assocs. v. Links*, 203 U.S.P.Q. 831, 835 (N.D. Ill. 1978) (holding phrase "When there is no room in hell . . . the dead will walk the earth" to be an integral part of a copyrighted advertisement, and defendant's unauthorized use of it demonstrated likelihood of success on the merits of infringement suit); *Grand Upright Music Ltd. v. Warner Bros. Records, Inc.*, 780 F. Supp. 182, 183-85 (S.D.N.Y. 1991) (finding lyric "alone again" to be protected as part of a copyrighted work and infringed by defendant rap artist's "sampling"). Short phrases may also be eligible for trademark protection if used to identify goods or services.

utilitarian elements of industrial designs;[85] familiar symbols or designs; simple geometrical shapes; mere variations of typographic ornamentation, lettering or coloring; and common works considered public property, such as standard calendars, height and weight charts, and tape measures and rulers.

Copyright protection also does not extend to any "idea, procedure, process, system, method of operation, concept, principle, or discovery, regardless of the form in which it is described, explained, illustrated, or embodied" in such work even if it meets the criteria for protection.[86] Thus, although a magazine article on how to tune a car engine is protected by copyright, that protection extends only to the expression of the ideas, facts and procedures in the article, not the ideas, facts and procedures themselves, no matter how creative or original they may be. Anyone may "use" the ideas, facts and procedures in the article to tune an engine -- or to write another article on the same subject. What may not be taken is the expression used by the original author to describe or explain those ideas, facts and procedures.[87]

---

[85] In *Mazer v. Stein*, the Supreme Court held that works of art which are incorporated into the design of useful articles, but which can stand by themselves as art works separate from the useful articles, are copyrightable. *See* 347 U.S. 201, 214-17 (1954). *See also* 17 U.S.C. § 101 (defining "useful article" as "an article having an intrinsic utilitarian function that is not merely to portray the appearance of the article or to convey information); 17 U.S.C. § 101 (in the definition of "pictorial, graphic, and sculptural works" noting that "the design of a useful article . . . shall be considered a pictorial, graphic, or sculptural work only if, and only to the extent that, such design incorporates pictorial, graphic, or sculptural features that can be identified separately from, and are capable of existing independently of, the utilitarian aspects of the article"). The House Report indicates that the required separability may be physical or conceptual. *See* HOUSE REPORT at 55, *reprinted in* 1976 U.S.C.C.A.N. 5668; *see also Kieselstein-Cord v. Accessories By Pearl, Inc.*, 632 F.2d 989, 993 (2d Cir. 1980).

[86] 17 U.S.C. § 102(b) (1988); *see Feist, supra* note 36, at 359 ("facts contained in existing works may be freely copied"); *Harper & Row, supra* note 34, at 547 ("no author may copyright facts or ideas").

[87] The ideas are not protected; the expression is. *Baker v. Seldon*, 101 U.S.

> Copyright does not prevent subsequent users from copying from a prior author's work those constituent elements that are not original -- for example . . . facts or materials in the public domain -- as long as such use does not unfairly appropriate the author's original contributions.[88]

This idea/expression dichotomy "assures authors the right to their original expression, but encourages others to build freely upon the ideas and information conveyed by a work."[89] Although it "may seem unfair that much of the fruit of the [author's] labor may be used by others without compensation," it is "a constitutional requirement" -- the "means by which copyright advances the progress of science and art."[90]

As a matter of law, copyright protection generally is not extended under the Copyright Act to works of the U.S.

99, 103 (1879); *Beal v. Paramount Pictures Corp.*, 20 F.3d 454, 458-59 (11th Cir.), *cert. denied*, 115 S. Ct. 675 (1994); *see also Harper & Row*, *supra* note 34, at 547-48 ("copyright is limited to those aspects of the work -- termed 'expression' -- that display the stamp of the author's originality"). The line between idea and expression is not easy to draw. The distinction is not that one is fixed and the other is not -- they are both fixed in the copyrighted work of authorship. At some point, the idea becomes detailed enough to constitute expression. Judge Learned Hand explained:

> Upon any work . . . a great number of patterns of increasing generality will fit equally well, as more and more of the incident is left out. The last may perhaps be no more than the most general statement of what the [work] is about, and at times might consist only of its title; but there is a point in this series of abstractions where they are no longer protected, since otherwise the [author] could prevent the use of his "ideas," to which, apart from their expression, his property is never extended.

Nichols v. Universal Pictures Corp., 45 F.2d 119, 121 (2d Cir. 1930).

[88] *Harper & Row*, *supra* note 34, at 548.

[89] *Feist*, *supra* note 36, at 349-50 (citing *Harper & Row*, *supra* note 34, at 556-57).

[90] *Feist*, *supra* note 36, at 349-50.

Government.[91] Therefore, nearly all works of the U.S. Government -- including this Report -- may be reproduced, distributed, adapted, publicly performed and publicly displayed without infringement liability in the United States under its copyright laws.[92] While the Copyright Act leaves most works created by the U.S. Government unprotected under U.S. copyright laws, Congress did not intend for the section to have any effect on the protection of U.S. government works abroad.[93]

d. CATEGORIES OF PROTECTIBLE WORKS

The Copyright Act enumerates eight broad categories of protectible subject matter:

(1) literary works;

(2) musical works, including any accompanying words;

(3) dramatic works, including any accompanying music;

---

[91] 17 U.S.C. § 105 (1988). There are limited exceptions to this noncopyrightability provision. For instance, the Secretary of Commerce is authorized to secure copyright on behalf of the United States "in all or any part of any standard reference data which he prepares or makes available" under the Standard Reference Data Program. *See* 15 U.S.C. § 290(e) (1988). Works of the U.S. Postal Service, such as designs on postage stamps, are also copyrightable by the Postal Service. *See* HOUSE REPORT at 60, *reprinted in* 1976 U.S.C.C.A.N. 5674 ("the Postal Service could . . . use the copyright law to prevent the reproduction of postage stamp designs for private or commercial non-postal services"). Copyright interests transferred to the U.S. Government by assignment, bequest or otherwise may be held and enforced by it. *See* 17 U.S.C. § 105 (1988).

[92] A work of the U.S. Government is a work "prepared by an officer or employee of the United States Government as part of that person's official duties." 17 U.S.C. § 101 (definition of "work of the United States Government"). Although the wording of this definition is not identical to that of a "work made for hire," the concepts "are intended to be construed in the same way." HOUSE REPORT at 58, *reprinted in* 1976 U.S.C.C.A.N. 5672. *See* discussion of works made for hire *infra* notes 134-36 and accompanying text.

[93] *See* HOUSE REPORT at 59, *reprinted in* 1976 U.S.C.C.A.N. 5672.

(4) pantomimes and choreographic works;

(5) pictorial, graphic and sculptural works;

(6) motion pictures and other audiovisual works;

(7) sound recordings; and

(8) architectural works.[94]

LITERARY WORKS

Although many categories of works will be available via the NII, the majority of works currently available on computer networks such as the Internet are literary works.

> "Literary works" are works, other than audiovisual works, expressed in words, numbers, or other verbal or numerical symbols or indicia, regardless of the nature of the material objects, such as books, periodicals, manuscripts, phonorecords, films, tapes, disks, or cards, in which they are embodied.[95]

Literary works include computer programs,[96] articles, novels, directories, computer databases, essays, catalogs, poetry, dictionaries, encyclopedias, and other reference materials.[97]

---

[94] 17 U.S.C. § 102(a) (1988 & Supp. V 1993).

[95] 17 U.S.C. § 101 (1988) (definition of "literary works").

[96] Following the recommendation of CONTU, Congress amended the Copyright Act in 1980 to recognize that computer programs are protected works. *See* Act of December 12, 1980, Pub. L. 96-517, 1980 U.S.C.C.A.N. (94 Stat.) 3015, 3028. "Computer programs" are defined as a "set of statements or instructions to be used directly or indirectly in a computer in order to bring about a certain result." *See* 17 U.S.C. § 101 (1988 & Supp. V 1993).

[97] *See* HOUSE REPORT at 54, *reprinted in* 1976 U.S.C.C.A.N. 5667.

MUSICAL WORKS

A musical work consists of the musical notes and lyrics (if any) in a musical composition.[98] A musical work may be fixed in any form, such as a piece of sheet music or a compact disc.[99] Musical works may be "dramatic," *i.e.*, written as a part of a musical or other dramatic work, or "nondramatic," *i.e.*, an individual, free-standing composition.

DRAMATIC WORKS

Generally, a dramatic work is one in which a series of events is presented to the audience by characters through dialogue and action as the events happen, such as in a play.[100]

PANTOMIMES AND CHOREOGRAPHIC WORKS

This category was first added to the list of protectible subject matter in 1976.[101] While pantomimes and choreographic works, such as dances, can be fixed in a series of drawings or notations, they are usually fixed on film or videotape.

---

[98] Congress did not define the term "musical work" in the statute based on the assumption that the term had a "fairly settled" meaning. *See* HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666-67.

[99] A phonorecord generally embodies two works -- a musical work (or, in the case of spoken word recordings, a literary work) and a sound recording. Musical works available through services on the NII may also be the subject of Musical Instrument Digital Interface ("MIDI") recordings. A MIDI is a data stream between a musical unit in a computer and a music-producing instrument. The data stream instructs the instrument, such as a synthesizer, on what notes to play.

[100] *See* H. ABRAMS, THE LAW OF COPYRIGHT § 204[C][3][b][iv] (1993). The term "dramatic works" is not defined in the Act. *See* HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666-67.

[101] Congress also declined to define the terms "pantomimes" and "choreographic works," again relying on "fairly settled meanings." *See* HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666-67.

PICTORIAL, GRAPHIC AND SCULPTURAL WORKS

A significant number of works traveling through the NII will be pictorial and graphic works. Works in this category include:

> [T]wo-dimensional and three-dimensional works of fine, graphic, and applied art, photographs, prints and art reproductions, maps, globes, charts, diagrams, models, and technical drawings, including architectural plans.[102]

A work of art which is incorporated into the design of a useful article, but which can stand by itself as art work separate from the useful article, is copyrightable, but the design of the useful article is not.[103]

MOTION PICTURES AND OTHER AUDIOVISUAL WORKS

The Copyright Act provides definitions of "audiovisual works" and the subcategory "motion pictures":

> "Audiovisual works" are works that consist of a series of related images which are intrinsically intended to be shown by the use of machines, or devices such as projectors, viewers, or electronic equipment, together with accompanying sounds, if any, regardless of the nature of the material objects, such as films or tapes, in which the works are embodied.[104]
>
> "Motion pictures" are audiovisual works consisting of a series of related images which, when shown in succession, impart an impression

---

102 17 U.S.C. § 101 (1988) (definition of "pictorial, graphic, and sculptural works").

103 *Mazer v. Stein*, 347 U.S. 201, 214-17 (1954); *see supra* note 85.

104 17 U.S.C. § 101 (1988) (definition of "audiovisual works").

> of motion, together with accompanying sounds, if any.[105]

The House Report notes that the key to the subcategory "motion pictures" is the conveyance of the impression of motion, and that such an impression is not required to qualify as an audiovisual work.[106]

SOUND RECORDINGS

A "sound recording" is the work that results from the fixation of sounds, including those that are musical or spoken.[107] When those sounds are included in an audiovisual work, such as a music video, they are considered part of the audiovisual work rather than a sound recording.[108]

ARCHITECTURAL WORKS

An "architectural work" is "the design of a building as embodied in any tangible medium of expression, including a building, architectural plans, or drawings."[109] It includes the overall form as well as the "arrangement and composition of spaces and elements" in the design of the building.[110]

---

105 17 U.S.C. § 101 (1988) (definition of "motion pictures").

106 *See* HOUSE REPORT at 56, *reprinted in* 1976 U.S.C.C.A.N. 5669.

107 *See* 17 U.S.C. § 101 (1988) (definition of "sound recordings").

108 The sounds accompanying an audiovisual work are specifically excluded from the definition of sound recordings. *See id.*

109 17 U.S.C. § 101 (Supp. V 1993) (definition of "architectural work"). The category of architectural works was added in 1990 by the Architectural Works Copyright Protection Act, Public Law 101-650, 1990 U.S.C.C.A.N. (104 Stat.) 5089, 5133.

110 *Id.*

COMPILATIONS AND DERIVATIVE WORKS

A compilation is "a work formed by the collection and assembling of preexisting materials or of data that are selected, coordinated, or arranged in such a way that the resulting work as a whole constitutes an original work of authorship."[111] Directories, databases, magazines and anthologies are types of compilations.

A derivative work is a work "based upon" one or more preexisting works.[112] A derivative work is created when one or more preexisting works is "recast, transformed, or adapted" into a new work, such as when a novel is used as the basis of a movie or when a drawing is transformed into a sculpture.[113] Translations, musical arrangements and abridgments are types of derivative works.

The Copyright Act makes clear that the subject matter of copyright specified in Section 102 (literary works, musical works, sound recordings, etc.) includes compilations and derivative works.[114] The copyright in a derivative work or compilation, however, extends only to the contribution of the author of the derivative work or compilation (the compiler), and does not affect the copyright protection granted to the preexisting material.[115] Protection for an individual musical work, for instance, is not reduced, enlarged, shortened or extended if the work is included in a collection, such as a medley of songs.

---

111 17 U.S.C. § 101 (1988) (definition of "compilation"). A "collective work," which is one kind of "compilation," is "a work, such as a periodical issue, anthology, or encyclopedia, in which a number of contributions, constituting separate and independent works in themselves, are assembled into a collective whole." 17 U.S.C. § 101 (1988) (definition of "collective work").

112 17 U.S.C. § 101 (1988) (definition of "derivative work").

113 *See id.*

114 *See* 17 U.S.C. § 103(a) (1988).

115 17 U.S.C. § 103(b) (1988).

Moreover, copyright in a compilation or derivative work does not imply any exclusive right in the preexisting material employed in the compilation or derivative work.[116] The copyright in a compilation, for example, is limited to the original selection or arrangement of the facts or other elements compiled; protection for the compilation in no way extends to the facts or elements.[117] Copyright protection is not granted simply for the hard work that may be involved in compiling facts. The Supreme Court struck down the doctrine that had protected such efforts, known as the "sweat of the brow" or "industrial collection" theory.[118]

"MULTIMEDIA" WORKS

Increasingly, works from different categories are fixed in a single tangible medium of expression.[119] This will certainly be true as development of the NII progresses and the ability to create and disseminate interactive "multimedia" or "mixed media" products increases.

A prefatory note may be warranted because of the manner in which these terms are used in the context of copyright law. The terms "multimedia" and "mixed media" are, in fact, misnomers. In these works, it is the types or categories of *works* that are "multiple" or "mixed" -- not the types of *media*. The very premise of a so-called

---

116 *Id.*

117 *See Feist*, *supra* note 36, at 350-51 (alphabetical "arrangement" of comprehensive list of telephone subscribers not sufficiently "original" and therefore noncopyrightable); *see also supra* pp. 32-34 (discussion of the noncopyrightability of facts).

118 *See Feist*, *supra* note 36, at 354 ("to accord copyright protection on this basis alone distorts basic copyright principles in that it creates a monopoly in public domain materials without the necessary justification of protecting and encouraging the creation of 'writings' by 'authors'").

119 The embodiment of two or more different types of works in one medium is not a new concept. For instance, a book may contain both a literary work and pictorial works. A compact disc may contain a musical work and a sound recording.

"multimedia" work is that it combines several different elements or types of works (*e.g.*, text (literary works), sound (sound recordings), still images (pictorial works), and moving images (audiovisual works)) into a *single medium* (*e.g.*, a CD-ROM) -- not multiple media.[120] However, in recognition of the prevalent use of the term, this Report refers to this type of work as a "multimedia" work.

Multimedia works are not categorized separately under the Copyright Act; nor are they explicitly included in any of the eight enumerated categories. While most current multimedia works would be considered compilations,[121] that classification does not resolve the issue of subject matter categorization.[122]

Despite the fact that the Copyright Act enumerates eight categories of works, works that do not fit into any of the categories may, nevertheless, be protected. The list of protectible works in Section 102 is intended to be illustrative rather than inclusive.[123] The House Report explains that the categories of works "do not necessarily exhaust the scope of 'original works of authorship' that the

---

120 A true "multimedia" work would be one in which several material objects, such as a book, a videocassette and an audiocassette, are bundled into one product.

121 *See* discussion of compilations *supra* pp. 40-41.

122 While expressly protected under the Copyright Act, the category of "compilations" is not a particularly useful subject matter category. Works in any of the eight enumerated categories of protectible subject matter outlined above may take the form of a compilation, and a protectible compilation must fit into one or more of the subject matter categories. "A compilation or derivative work is copyrightable if it represents an 'original work of authorship' *and* falls within one or more of the categories listed in section 102." HOUSE REPORT at 57, *reprinted in* 1976 U.S.C.C.A.N. 5670 (emphasis added).

123 The list "sets out the general area of copyrightable subject matter, but with sufficient flexibility to free the courts from rigid or outmoded concepts of the scope of particular categories." HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666.

[Copyright Act] is intended to protect."[124] However, absent the addition of a new category, a work that does not fit into one of the enumerated categories is, in a sense, in a copyright no-man's land.[125]

Under the current law, the categorization of a work holds a great deal of significance under the Copyright Act. For instance, two of the exclusive rights granted in Section 106 apply only to certain categories of works.[126] In addition, many of the limitations on rights in Sections 108 through 120 are not applicable to all types of works.[127] Therefore,

---

[124] HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666. Indeed, Congress amended the Copyright Act in 1990 to add "architectural works" as a category of protectible works. *See supra* note 109.

[125] It should be noted that the Copyright Office classifies works into four broad categories for purposes of registration: nondramatic literary works, works of performing arts, works of visual arts, and sound recordings. *See* 37 C.F.R. § 202.3(b)(i)-(iv) (1994). The Copyright Office notes that in cases "where a work contains elements of authorship in which copyright is claimed which fall into two or more classes, the application should be submitted in the class most appropriate to the type of authorship that predominates in the work as a whole." *See* 37 C.F.R. § 202.3(b)(2) (1994). However, the Copyright Act makes clear that the Copyright Office classification of works for purposes of registration "has no significance with respect to the subject matter of copyright or the exclusive rights provided." *See* 17 U.S.C. § 408(c)(1) (1988); *see also* HOUSE REPORT at 153, *reprinted in* 1976 U.S.C.C.A.N. 5769 ("[i]t is important that the statutory provisions setting forth the subject matter of copyright be kept entirely separate from any classification of copyrightable works for practical administrative purposes").

[126] *See* 17 U.S.C. § 106(4),(5) (1988 & Supp. V 1993). The public performance right is limited to literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works. The public display right is limited to literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work. *Id.*

[127] *See, e.g.*, 17 U.S.C. § 108(h) (1988) (limitation not applicable to musical works, pictorial, graphic or sculptural works, or motion pictures or other audiovisual works other than audiovisual works dealing with news); 17 U.S.C. § 109(b) (Supp. V 1993) (certain limitations not applicable to sound recordings and musical works embodied in sound recordings or to computer programs); 17 U.S.C. § 110(4) (1988) (limitation applicable only to nondramatic literary or musical works); 17 U.S.C § 110(8) (1988) (limitation applicable only to nondramatic literary works); 17 U.S.C. § 110(9) (1988) (limitation applicable

categorization of multimedia and other new types of works is an important issue.

Generally, multimedia works include two or more of the following preexisting elements: text (literary works), computer programs (literary works), music (musical works and sound recordings), still images (pictorial and graphic works) and moving images (audiovisual works). The definition of "literary works" begins with the phrase "works, *other than audiovisual works* . . . ."[128] Therefore, a reasonable interpretation may be that text and computer programs that would otherwise be categorized as literary works may be considered part of an audiovisual work if included in a work of that type. Such is also the case with sound recordings. A music video is not categorized as both a sound recording and an audiovisual work; it is categorized as an audiovisual work.[129] Audiovisual works also include still images -- at least related ones.[130] Therefore, in many instances, a multimedia work may be considered -- as a whole -- an audiovisual work. The legislative history makes clear that a

---

only to dramatic literary works); 17 U.S.C. § 112(a) (1988) (limitation not applicable to motion pictures or other audiovisual works); 17 U.S.C. § 113 (1988 & Supp. V 1993) (limitation applicable only to pictorial, graphic, or sculptural works); 17 U.S.C. § 114 (1988) (limitation applicable only to sound recordings); 17 U.S.C. § 115 (1988) (limitation applicable only to nondramatic musical works); and 17 U.S.C. § 120 (Supp. V 1993) (limitation applicable only to architectural works).

128 *See* 17 U.S.C. § 101 (1988) (definition of "literary works") (emphasis added).

129 The definition of "sound recordings" explicitly excludes from the category of sound recordings musical, spoken or other sounds "accompanying a motion picture or other audiovisual work . . . ." *See* 17 U.S.C. § 101 (1988) (definition of "sound recordings"). The definition of "audiovisual works" also expressly includes any "accompanying sounds." *See* 17 U.S.C. § 101 (1988) (definition of "audiovisual works").

130 Audiovisual works are "works that consist of a series of related images which are intrinsically intended to be shown by the use of machines or devices such as projectors, viewers, or electronic equipment . . . ." 17 U.S.C. § 101 (1988) (definition of "audiovisual works").

work in one category may contain works in other categories.[131]

The somewhat strained analysis needed to find a category for multimedia works and the increasing "cross-breeding" of types of works demonstrate that categorization may no longer be useful or necessary. While the Working Group does not recommend at this time the consolidation or elimination of categories (and harmonization of the differing application of rights and limitations on those rights), it is likely that such consolidation or elimination will be appropriate in the future.

3. COPYRIGHT OWNERSHIP

Copyright ownership in a work initially vests in the author of the work.[132] If the work is a "joint work" (a work with two or more authors), the authors are co-owners of the copyright in the work.[133]

Under certain circumstances, the copyright in a work is not granted to the actual preparer of the work. In the case of "works made for hire," the employer of the preparer or the person for whom the work was prepared is considered the "author" for purposes of the Copyright Act.[134] There are two types of works made for hire -- those prepared by an employee and those prepared by an independent contractor by special order or commission.

---

131 Categories are "overlapping in the sense that a work falling within one class may encompass works coming within some or all of the other categories." HOUSE REPORT at 53, *reprinted in* 1976 U.S.C.C.A.N. 5666.

132 17 U.S.C. § 201(a) (1988).

133 *Id.* A "joint work" is "a work prepared by two or more authors with the intention that their contributions be merged into inseparable or interdependent parts of a unitary whole." 17 U.S.C. § 101 (1988) (definition of "joint work").

134 *See* 17 U.S.C. § 201(b) (1988). This legal conclusion may only be altered by the parties in a written instrument signed by them expressly agreeing otherwise. *Id.*

The copyright in a work prepared by an employee within the scope of employment vests in the employer, and the employer is the author.[135] The copyright in a work specially ordered or commissioned vests in the person for whom the work was prepared if the work falls into one of nine specified categories and if the parties expressly agree in writing that the work will be considered a work made for hire.[136]

Copyright ownership entitles the copyright owner to:

- exercise the exclusive rights granted under Section 106;
- authorize others to exercise any of those exclusive rights; and
- prevent others from exercising any of those exclusive rights.

---

[135] The Copyright Act does not define "employee." In 1989, the Supreme Court held that an employment relationship determination for copyright purposes should be made by reference to the "general common law of agency." *See Community for Creative Non-Violence v. Reid*, 490 U.S. 730, 740-41 (1989). The central question in an agency law inquiry is whether the hiring party has the "right to control the manner and means by which the product is accomplished." *Id.* at 751. The factors to be considered include the skill required, the source of the instrumentalities and tools used in creating the work, where the work was created, the duration of the relationship between the parties, whether the hiring party has the right to assign additional projects to the hired party, the method of payment, the extent of the hired party's discretion over when and how long to work, the hired party's role in hiring and paying assistants, whether the hiring party is in business and whether the work is part of the regular business of the hiring party, the provision of employee benefits, and the tax treatment of the hired party. *Id.* at 751-52. The Court did not specify any factors that should be weighed more heavily than others, but made clear that an "employee" under the Copyright Act is not limited to a formal, salaried employee.

[136] To qualify as a work made for hire under the second prong, the work must be specially ordered or commissioned for use as (1) a contribution to a collective work, (2) part of an audiovisual work, (3) a translation, (4) a supplementary work, (5) a compilation, (6) an instructional text, (7) a test, (8) answer material for a test or (9) an atlas. 17 U.S.C. § 101 (1988) (definition of "work made for hire").

An important distinction to understand is the difference between ownership of a *copyright* in a work and ownership of a *copy* of a work. Ownership of a copy -- the material object in which a copyrighted work is embodied (*e.g.*, a book, CD or videocassette) -- carries with it no interest in the copyright.[137]

> Ownership of a copyright, or any of the exclusive rights under a copyright, is distinct from ownership of any material object in which the work is embodied. Transfer of ownership of any material object, including the copy or phonorecord in which the work is first fixed, does not of itself convey any rights in the copyrighted work embodied in the object; nor, in the absence of an agreement, does transfer of ownership of a copyright or of any exclusive rights under a copyright convey property rights in any material object.[138]

Ownership, possession or any other attachment to or relationship with a copy of a copyrighted work (including obtaining access to it through a computer network or other service) does not entitle one to exercise any of the exclusive rights of the copyright owner (*e.g.*, to reproduce it or to perform it publicly).

a. TRANSFER OF OWNERSHIP

Copyright ownership, or ownership of any of the exclusive rights (in whole or in part), may be transferred to one or more persons.[139] A transfer of rights must be in

---

137 *See* 17 U.S.C. § 202 (1988).

138 *Id.*

139 *See* 17 U.S.C. § 201(d)(1) (1988) ("ownership of a copyright may be transferred in whole or in part by any means of conveyance or by operation of law, and may be bequeathed by will or pass as personal property by the applicable laws of intestate succession").

writing and must be signed by the transferor.[140] A transfer may occur through an assignment, exclusive license, mortgage, "or any other conveyance, alienation, or hypothecation" of a copyright or any of the exclusive rights.[141] A transfer of copyright ownership may be limited in time or in place, but it must be an exclusive transfer of whatever right or rights are involved (*i.e.*, nonexclusive licenses are not considered transfers of ownership).[142] Any of the exclusive rights in the work[143] may be separately transferred and owned, and the owner of a particular right is considered the "copyright owner" with respect to that right.[144]

In the case of any copyrighted work other than a "work made for hire," all transfers of copyright ownership (as well as all nonexclusive licenses) executed by the author of the work may be terminated by the author 35 years after the transfer.[145] This right to terminate, intended to protect authors, cannot be waived by contract or other

---

[140] 17 U.S.C. § 204(a) (1988). An exclusive license is considered a transfer of copyright and, therefore, must be in writing. Although an exclusive license may be limited in time, place or scope, it nevertheless extends the benefits of copyright ownership with respect to the rights granted to the licensee for the duration of the license. The rights of a copyright owner may also be licensed on a nonexclusive basis to one or more licensees. The Copyright Act does not require nonexclusive licenses to be in writing.

[141] 17 U.S.C. § 101 (1988) (definition of "transfer of copyright ownership"). With the exception of transfers by operation of law, all transfers of copyright ownership must be in writing. 17 U.S.C. § 204(a) (1988) ("transfer of copyright ownership, other than by operation of law, is not valid unless an instrument of conveyance, or a note or memorandum of the transfer, is in writing and signed by the owner of the rights conveyed or such owner's duly authorized agent").

[142] *See* 17 U.S.C. § 204(a) (1988).

[143] *See* discussion of the exclusive rights of a copyright owner *infra* pp. 63-72.

[144] *See* 17 U.S.C. § 201(d)(2) (1988); 17 U.S.C. § 101 (1988) (definition of "copyright owner").

[145] *See* 17 U.S.C. § 203(a) (1988); *see also* 17 U.S.C. § 304(c) (1988 & Supp. V 1993).

agreement.[146] However, termination is not automatic; an author must assert his or her termination rights and comply with certain statutory requirements to regain copyright ownership.[147]

b. LICENSING

The exclusive rights of a copyright owner may be licensed on an exclusive basis (*i.e.*, copyright ownership in one or more rights is transferred by the copyright owner) or on a nonexclusive basis (*i.e.*, the copyright owner retains ownership of the copyright and may grant similar licenses to others). A nonexclusive licensee is not a copyright owner and thus does not have standing to sue for any infringement of the copyright in the work by others.[148] Unlike exclusive licenses, nonexclusive licenses need not be in writing.[149]

Limitations on the exclusive rights, such as the first sale doctrine, fair use or library exemptions, may be overridden by contract.[150] However, such contract terms

---

[146] 17 U.S.C. § 203(a)(5) (1988) ("[t]ermination of the grant may be effected notwithstanding any agreement to the contrary, including an agreement to make a will or to make any future grant").

[147] *See* 17 U.S.C. § 203(a) (1988).

[148] *See* 17 U.S.C. § 501(b) (1988) ("legal or beneficial owner of an exclusive right under a copyright is entitled . . . to institute an action for any infringement of that particular right committed while he or she is the owner of it"). In certain circumstances, television broadcast stations and others are treated as legal or beneficial owners and may bring actions for infringement by cable systems and satellite carriers. *See* 17 U.S.C. § 501(c), (d), (e) (1988).

[149] However, like exclusive licenses, nonexclusive licenses may be terminated 35 years after the effective date of the license. *See* 17 U.S.C. §§ 203(a) (1988), 304(c) (1988 & Supp. V 1993).

[150] For example, a user could decide to participate in a licensing program covering all copies made, for a nominal fee per copy, rather than to indulge in the record-keeping necessary to determine which copies are subject to a licensing fee and which are fair use. Copyright owners may not be allowed, however, to seek to increase the term of protection without implicating the doctrine of copyright misuse. *Cf. Saturday Evening Post Co. v. Rumbleseat Press, Inc.*, 816 F.2d 1191, 1200 (7th Cir. 1987) (claims of misuse must be judged by

can be enforced only under state law. For instance, the fair use of a work (outside the scope of the license) by a licensee whose license precludes any use other than that specified by the license would not be an infringement of copyright, but would be a breach of the license agreement. Licenses and other contracts cannot transform noninfringing uses (such as fair uses) into infringements; they can, however, make such uses violations of the terms and conditions of the agreements:

> A library that has acquired ownership of a copy is entitled [under the Copyright Act] to lend it under any conditions it chooses to impose. This does not mean that conditions on future disposition of copies or phonorecords, imposed by a contract between their buyer and seller, would be unenforceable between the parties as a breach of contract, but it does mean that they could not be enforced by an action for infringement of copyright.[151]

Licensing issues are, and will continue to be, significant in the context of the development of the NII. Services on the NII will provide the opportunity for new uses for copyrighted works. If rights with respect to these new uses are not expressly granted or retained in license agreements, conflicts will arise between copyright owners and licensees. For instance, public display on a bulletin board system may not have been contemplated in licenses granting a public display right that were executed before the advent or proliferation of such systems.

---

antitrust standards); *Lasercomb America, Inc. v. Reynolds*, 911 F.2d 970, 979 (4th Cir. 1990) (contract purporting to license copyright for 99 years rendered copyright owner guilty of copyright misuse). The doctrine of copyright misuse might be implicated in other situations where the scope of protection is significantly expanded.

[151] HOUSE REPORT at 79, *reprinted in* 1976 U.S.C.C.A.N. 5693.

Some argue that new uses which were not contemplated at the time of licensing but which fall within rights granted, such as the public display example above, should automatically fall within the scope of the license. Others contend that new uses which are not contemplated and, therefore, not specifically mentioned in a grant of rights should be considered retained by the licensor -- even in the case of a complete assignment of rights.

Failure to contemplate possible future developments, of course, is not a new problem, and is one based primarily in contract rather than copyright law. Whenever new technologies have produced a new use for works, courts have been called upon to decide whether the new use is covered by old licenses.[152] That is the proper jurisdiction for such determinations. License agreements must be interpreted individually and under the law of the governing state.

A variety of licensing methods will be possible as the NII develops. For instance, rights in copyrighted works offered via the NII may be licensed off-line or on-line. They may be licensed directly (through individual transactions between the rightsholder and the licensee) or through other licensing arrangements, such as voluntary collective licensing. Licensing of rights may be on a per-use, per-work or other basis.

---

[152] *See, e.g., Harper Bros. v. Klaw*, 232 F. 609 (S.D.N.Y. 1916) (license to dramatize "Ben Hur" in a play did not include right to produce a movie, but licensor enjoined from producing movie because licensee's right to produce a play would be harmed by licensor's production of a movie); *L.C. Page & Co. v. Fox Film Corp.*, 83 F.2d 196 (2d Cir. 1936) (grant of exclusive "moving picture" rights embraced technical improvements in movies that might be developed during the term of the license; thus, license held to cover "talkies"); *Bartsch v. Metro-Goldwyn-Mayer, Inc.*, 391 F.2d 150 (2d Cir.), *cert. denied*, 393 U.S. 826 (1968) (1930 license of film rights in a play, when television was a known technology but its full impact not yet realized, included television rights; as experienced businessman, licensor had reason to know of new technology's potential and had burden of negotiating exception).

The licensing of rights for the creation of multimedia works -- whose creators may wish to include dozens of preexisting works (or portions thereof) -- can be difficult. Because registration and copyright notices are not required for copyrighted works, identification of copyright owners alone can be complicated. Furthermore, the relative newness of the multimedia industry can result in an uncertainty on the part of copyright owners and multimedia creators with regard to appropriate terms and conditions for such uses.

With limited exceptions, intellectual property law leaves the licensing of rights to the marketplace. In certain circumstances, particularly where transaction costs are believed to dwarf per-transaction royalties, Congress has found it necessary to provide for compulsory licenses.[153] The Working Group finds that, under current conditions, additional compulsory licensing of intellectual property rights is neither necessary nor desirable. Compulsory licensing disregards marketplace forces. Such licensing schemes treat all works alike, even though their value in a competitive marketplace would likely vary dramatically. It also treats all users alike. It alters the free market relationship between buyers and sellers. Moreover, transaction costs -- and the attendant savings from compulsory licensing -- can be minimized in a digital environment.

Technology will facilitate individual licensing schemes.[154] Many projects and studies have been initiated to explore ways in which technology can be used to enhance a user's ability to identify the rightsholder of a work and

---

153 *See, e.g.*, 17 U.S.C. § 111 (1988 & Supp. V 1993). The cable compulsory license was enacted to reduce the need for negotiations among thousands of program copyright owners and hundreds of cable systems for the right to retransmit the copyrighted programs that are included in the broadcast signals retransmitted by cable systems.

154 *See* discussion of on-line transactions *infra* pp. 53-59.

license its use. The inclusion of copyright management information in copies of works will also facilitate licensing.[155]

The marketplace should be allowed to develop whatever legal licensing systems may be appropriate for the NII. However, the Working Group encourages copyright owners to explore with libraries and schools special, institutional licenses. These licenses would enable the costs to be borne, for instance, by the library so that its patrons might access and use works without direct costs, as they generally do in the print domain.[156] The Working Group also endorses increased funding for libraries and educational institutions to assist their ability to purchase and license works in digital form.

c. ON-LINE TRANSACTIONS

The NII will be a conduit for many types of commercial transactions.[157] Electronic purchasing of goods facilitates the ordering, shipment, and tracking of inventory for nearly any manufactured product. Consumers increasingly will have access to on-line banking, catalogues, video tours of homes, and countless other services. Payment for these goods and services may be made through conventional methods, such as checks or credit cards, or through "digital cash" -- on-line funds transfers between a consumer's bank and an on-line provider.[158] In addition,

---

155 *See* discussion *infra* pp. 191-92, 235-36.

156 Library subscription costs for print journals have for many years been two or more times those for individual subscriptions. This additional cost has been assumed by some to permit use of the material by the library's patrons. Licenses would serve to convert this assumption to explicit terms that could be negotiated, avoiding misunderstandings and litigation.

157 *See generally* Information Infrastructure Task Force, Committee on Applications and Technology, *Putting the Information Infrastructure to Work*, 25-40 (May 1994).

158 *See* discussion *infra* pp. 192-94; *see generally* Uniform Commercial Code,

certain NII uses of protected works will be regulated through electronic licenses.

The law dealing with electronic commerce is not clear -- especially for totally paperless transactions.[159] On-line contracting and licensing raise a number of concerns about the validity and enforceability of such transactions. The NII will not be used to its fullest commercial potential if providers and consumers cannot be confident that their electronic agreements are valid and enforceable.

Considering a number of different transactions that may take place on the NII helps identify where contract law is strained and the impact of this strain on NII users. Although some of the transactions identified may not involve the license or transfer of rights in a copyrighted work, examination of the principles involved in, for example, the on-line sale of copies of copyrighted works in the NII environment may provide useful background and understanding of the overall legal atmosphere for on-line transactions.

ON-LINE CONTRACTS NOT INVOLVING THE SALE OF GOODS

At common law, a contract is formed when the contracting parties manifest mutual, voluntary assent to be bound by a set of terms -- typically through an offer and acceptance.[160] In addition, under the "mirror image rule," the parties must agree to identical terms before a contract is formed -- the so-called "meeting of the minds." The threshold question is whether an electronic message of offer or acceptance or the simple use of the "accept" or "return"

Art. 4A (1990); K. Epper, *Money Creators: Point of Sale Pioneer Setting Sail on the Internet*, The American Banker 14 (Feb. 10, 1995).

[159] B. WRIGHT, THE LAW OF ELECTRONIC COMMERCE 235 (1991 & Supp. 1994) (hereinafter WRIGHT).

[160] *See* J. CALAMARI & J. PERILLO, THE LAW OF CONTRACTS 25 (3d ed. 1987) (hereinafter CALAMARI & PERILLO).

key in response to a provider's offer or consumer's request is assent.[161]

A second issue is whether an electronic manifestation of assent meets the mirror image rule[162] -- that is, whether there was a meeting of the minds. If the seller provides an on-line contract form with terms that are essentially non-negotiable, then, like the "shrink wrap" licenses used by software publishers,[163] the purchaser can only accept or reject the terms. If the purchaser accepts, the mirror image rule is met. However, when a consumer assents to such a "standard form" contract, and there is no alternative source for a similar service, the result may be a contract of adhesion.[164]

Assent in contracts of adhesion has been considered in the context of on-line services and shrink wrap licenses.[165] While there is no clear "rule," a traditional analysis looks to the reasonableness of terms and the applicability of the agreement's terms to similarly situated parties.[166] The

---

161 In *Corinthian Pharmaceutical v. Lederle Laboratories*, the court found that the "automated, ministerial act" of a seller issuing an electronic order tracking number to a purchaser's on-line purchase order did *not* constitute assent or acceptance by the seller. *See* 724 F. Supp. 605, 610 (S.D. Ind. 1989); *see also* WRIGHT, *supra* note 159, at 236 (1991); Electronic Messaging Task Force, *The Commercial Use of Electronic Data Interchange -- A Report and Model Trading Partner Agreement*, A.B.A. Sec. Bus. Law, *reprinted from* 45 BUS. LAW 1647 (1990) (hereinafter A.B.A. Report or A.B.A. Model Agreement).

162 *See Step-Saver Data Systems, Inc. v. Wyse Technology*, 939 F.2d 91 (3d Cir. 1991).

163 *See id.* at 96 n.7.

164 *See Standard Oil Co. v. Perkins*, 347 F.2d 379, 385 n.5 (9th Cir. 1965).

165 *Compare* D. Johnson & K. Marks, *Mapping Electronic Data Communications onto Existing Legal Metaphors: Should We Let Our Conscience (and Our Contracts) be Our Guide?*, 38 VILL. L. REV. 487, 488-89 (1993) *with* Note, *Offers Users Can't Refuse: Shrink-Wrap License Agreements as Enforceable Adhesion Contracts*, 10 CARDOZO L. REV. 2105, 2120 (1989).

166 *See* RESTATEMENT (SECOND) OF CONTRACTS § 211 (1981).

status of shrink wrap licenses for software provides some guidance; however, shrink wrap licenses have not been treated consistently.[167] In some cases, the U.C.C. has been applied, thus avoiding the question of adhesion by inferring formation.[168] In addition, Illinois and Louisiana have both attempted to statutorily "validate" such shrink wrap licenses.[169]

A third issue involves writing and signature requirements for certain contracts.[170] In the NII, where transactions may be entirely paperless, it may be unclear whether electronic messages are written and what will be considered an adequate signature.[171]

ON-LINE SALE OF GOODS WITH CONVENTIONAL DELIVERY

For the sale of goods, the U.C.C. alleviates many of these common law concerns.[172] With regard to assent, the U.C.C. states that, "[a] contract for sale of goods may be made in any manner sufficient to show agreement, including conduct by both parties which recognizes the

---

167 *Compare Step-Saver*, *supra* note 162, at 99 *with Arizona Retail Systems v. Software Link*, 831 F. Supp. 759 (D. Ariz. 1993).

168 *See Step-Saver*, *supra* note 162, at 99; *see also* J. Peys, *Comment, Commercial Law -- The Enforceability of Computer "Box-Top" License Agreements Under the U.C.C.*, 7 WHITTIER L. REV. 881, 885-92 (1985).

169 *See* ILL. REV. STAT. ch. 29, para. 801-08 (1986); LA. REV. STAT. §§ 51:1961-66 (1987). The Louisiana statute was declared partially invalid in a controversial decision in *Vault Corp. v. Quaid Software, Ltd.* because the court found that it impinged on "rights" under the U.S. copyright laws, and was therefore preempted. *See* 847 F.2d 255, 270 (5th Cir. 1988).

170 *See* RESTATEMENT (SECOND) OF CONTRACTS § 131 (1981). Signed writings are also required for exclusive licenses and assignments under the Copyright Act. *See* 17 U.S.C. § 204 (1988).

171 *See* WRIGHT, *supra* note 159, at 274 (1991).

172 *See* U.C.C. § 1-102(2)(b) (1990).

existence of such a contract."[173] Likewise, "an offer to make a contract shall be construed as inviting acceptance in any manner and by any medium reasonable in the circumstances."[174] Thus, application of the U.C.C. may infer assent through any reasonable conduct -- including transmission of electronic messages.

Similarly, the U.C.C. loosens the requirements of the mirror image rule. The U.C.C. infers formation and focuses on establishing the contract's controlling terms.[175] The formalities necessary for enforceability are also relaxed by the U.C.C.[176] As sales of goods become more common via the NII, the U.C.C. will likely become more useful based on the flexible "course of dealing" and "usage of trade" definitions.[177]

ON-LINE SALE OF GOODS WITH ELECTRONIC DELIVERY

A third transaction is where goods are both ordered and delivered via the NII. The primary difference between goods delivered via the NII and those discussed earlier is that the goods themselves may not "exist" prior to the delivery. Rather, they are reproduced upon transmission to the buyer's computer system. Because the goods do not exist prior to the sale, the goods are considered "future

---

173 U.C.C. § 2-204 (1990).

174 *Id.* at § 2-206 (1990).

175 *See* U.C.C. § 2-207 (1990).

176 The U.C.C. contains a Statute of Frauds which raises the same questions as common law concerning whether a purely electronic contract can meet the writing and signature requirements. However, the U.C.C. Statute of Frauds includes exceptions to the requirements -- for specially manufactured goods not suitable for sale to others which the seller has begun to manufacture, and for goods that have been received and accepted. *See* U.C.C. § 2-201(2), (3) (1990).

177 *See* U.C.C. § 1-205(1), (2) (1990).

goods" under the U.C.C., and remedies for breach of contract are limited.[178]

ON-LINE LICENSES FOR USES OF WORKS

The licensing of copyrighted works via the NII is more problematic. Application of U.C.C. Article 2 is questionable, because the works involved may not be "goods" under the U.C.C., and because the transaction itself is not a "sale," but rather a license to use or access the work.[179] Common law principles of contract law, therefore, may apply to on-line licenses.[180] Amendment of Article 2 of the U.C.C. to cover such licensing transactions is being actively considered by the Permanent Editorial Board for the Uniform Commercial Code.[181]

The challenge for commercial law, as for intellectual property law, is to adapt to the reality of the NII by providing clear guidance as to the rights and responsibilities of those using the NII. Without certainty in electronic contracting, the NII will not fulfill its commercial potential. The Working Group believes that, regardless of the type of transaction, where parties wish to contract electronically, they should be able to form a valid contract on-line.

In particular, on-line licenses should be encouraged because they offer efficiency for both licensors and licensees. Moreover, state validating statutes -- similar to those used to validate shrink wrap licenses -- can be used for

---

178 *See* U.C.C. §§ 2-105(2), 716(3) (1990). *See* D. Frisch, *Symposium: The Revision of the Uniform Commercial Code*, 35 WM. & MARY L. REV. 1691, 1729 (1994).

179 *See* U.C.C. § 1-102 (1990). *But see* CALAMARI & PERILLO, *supra* note 160, at 16; *Step Saver*, *supra* note 162, at 94; *Advent Systems Ltd. v. Unisys Corp.*, 925 F.2d 670 (3d Cir. 1991).

180 *See supra* notes 160-71 and accompanying text.

181 *See* R. Nimmer, *Symposium: The Revision of Article 2 of the Uniform Commercial Code*, 35 WM. & MARY L. REV. 1337, 1341-50 (1994).

on-line licenses to help overcome concerns regarding adhesion; and such statutes should not be preempted as long as they do not attempt to grant rights equivalent to any of the exclusive rights within the general scope of copyright.[182] Thus, a statute that merely recognizes the validity of on-line licenses -- even those licenses which cover the exclusive rights of the copyright owner -- would not usurp Federal power and should be upheld.

Further, just as the copyright law needs minor clarifications to account for new technology, so too might commercial law. Historically, the U.C.C. has been extremely successful in clarifying the law. However, as technology advances, the way in which business is conducted places strains upon the U.C.C. -- especially Article 2. Therefore, the Working Group supports the efforts presently underway to revise Article 2 of the U.C.C. to encompass licensing of intellectual property.

4. TERM OF PROTECTION

Generally, a copyrighted work is protected for the length of the author's life plus another 50 years.[183] In the case of joint works, copyright protection is granted for the length of the life of the last surviving joint author plus another 50 years.[184] Works made for hire, as well as

---

182 *See* 17 U.S.C. § 301 (1988).

183 *See* 17 U.S.C. § 302(a) (1988). The terms of protection for works created before January 1, 1978 (the effective date of the 1976 revisions to the Copyright Act) are set forth in Sections 303 and 304 of the Act. *See* 17 U.S.C. §§ 303, 304 (1988 & Supp. V 1993). Bills introduced in the 104th Congress would extend by 20 years the term of protection for all works. *See* S. 483, 104th Cong., 1st Sess. (1995); H.R. 989, 104th Cong., 1st Sess. (1995). A directive adopted by the Council of Ministers of the European Union requires all EU member states to provide a term of protection for copyrighted works of life of the author plus 70 years. Although a number of member states have yet to enact legislation extending terms, the obligations of the directive were to go into effect on July 1, 1995. *See* Council Directive 7831/93 of 13 July 1993 on Harmonizing the Term of Protection of Copyright and Certain Related Rights.

184 17 U.S.C. § 302(b) (1988).

anonymous and pseudonymous works, are protected for a term of either 75 years from the year of first publication or 100 years from the year of creation, whichever is shorter.[185] When the term of protection for a copyrighted work expires, the work falls into the "public domain."[186]

5. NOTICE, DEPOSIT AND REGISTRATION

Prior to the United States accession to the Berne Convention and the concomitant amendments to the Copyright Act, a copyright notice was required on all publicly distributed copies or phonorecords of works. Omission of the notice could result in the loss of copyright protection for the work. However, in 1989, the use of a copyright notice became permissive rather than required.[187] Section 401(a) of the Copyright Act provides:

> Whenever a work protected under this title is published in the United States or elsewhere by authority of the copyright owner, a notice of copyright . . . *may be* placed on publicly distributed copies from which the work can be visually perceived, either directly or with the aid of a machine or device.[188]

---

[185] 17 U.S.C. § 302(c) (1988). The term for anonymous or pseudonymous works differs if the identity of one or more of the authors is revealed before the end of the term of protection. *See id.*

[186] The public domain is the legal status of works whose term of copyright protection has ended or which are not protected for other reasons, such as the noncopyrightability of the subject matter.

[187] *See* Act of October 31, 1988, Pub. L. 100-568, 1988 U.S.C.C.A.N. (102 Stat.) 2853, 2857. Copyright notice is still required on copies and phonorecords of works publicly distributed prior to March 1, 1989, the effective date of the Act.

[188] 17 U.S.C. § 401(a) (1988) (emphasis added). The copyright owner of a sound recording may also place a notice of copyright on publicly distributed phonorecords of the sound recording. 17 U.S.C. § 402(b) (1988).

If a copyright notice is used, it generally must consist of three elements:

- the letter "C" in a circle (©) or the word "Copyright" or the abbreviation "Copr." (in the case of sound recordings embodied in phonorecords, the letter "P" in a circle);
- the year of first publication of the work; and
- the name of the owner of copyright in the work.[189]

As a general rule, two copies of a published work must be deposited in the Copyright Office within three months of publication for the benefit of the Library of Congress.[190] The Register of Copyrights may exempt categories of works from the deposit requirements. The Register may also require only one copy of the work or allow alternative forms of deposit.[191] Although required by the Copyright Act, the deposit of copies is not a prerequisite to or condition of copyright protection. Failure to deposit copies of a work after a written demand by the Register of Copyrights, however, generally results in the imposition of a fine.[192]

Registration with the Copyright Office is permissive, rather than mandatory. It is not a prerequisite to the grant of exclusive rights.[193] It is, however, generally a prerequisite to the enforcement of those rights in court.[194] The copyright owner of a work (or the owner of any of the

---

189 *See* 17 U.S.C. §§ 401(b), 402(b) (1988).

190 *See* 17 U.S.C. § 407 (1988).

191 *See* 17 U.S.C. § 407(c) (1988); *see also* 37 C.F.R § 202.19(e) (1994).

192 *See* 17 U.S.C. § 407(d) (1988).

193 17 U.S.C. § 408(a) (Supp. V 1993).

194 17 U.S.C. § 411(a) (Supp. V 1993). Registration is required before a suit for infringement may be brought for works of U.S. origin and for foreign works from countries which are not members of the Berne Convention.

exclusive rights) may register the copyright in the work by depositing with the Copyright Office a completed application form, registration fee and a copy or copies of the work.[195] The deposit requirement under the Act may be fulfilled through the registration procedures.[196]

Although not required, registration may be advisable. A certificate of copyright registration constitutes prima facie evidence of the validity of the copyright and the facts stated in the certificate, if registration is made within five years of first publication.[197] In addition, certain remedies are available in infringement suits only if registration is made prior to the date of the infringement or within three months of first publication.[198]

The lack of notice and registration requirements may make it harder to differentiate between protected and unprotected works, including those in the public domain and those in which the author does not wish to claim copyright. It may also make it more difficult to identify the copyright owner. This has led some to suggest, at least with respect to works disseminated via computer networks, that one should be free to copy any work that does not contain a copyright notice and that registration should be required.

While these arguments may have some merit, the balance of interests has not changed since these issues were considered by Congress and the requirements were eliminated. Conditioning copyright protection on the affixation of copyright notices and/or registration would be

---

[195] *See* 17 U.S.C. § 408 (a), (b) (1988 & Supp. V 1993). Only one copy of the work is required for certain types of works, including unpublished works.

[196] 17 U.S.C. § 408(b) (1988).

[197] 17 U.S.C. § 410(c) (1988); *Bibbero Systems, Inc. v. Colwell Systems, Inc.*, 893 F.2d 1104, 1106 (9th Cir. 1990). The weight to be accorded a certificate when registration has been made more than five years from the date of first publication is within the discretion of the court. 17 U.S.C. § 410(c) (1988).

[198] *See* 17 U.S.C. § 412 (1988 & Supp. V 1993).

inconsistent with our obligations under the Berne Convention.[199] Further, the benefits of utilizing Copyright Management Information should encourage copyright owners to include or affix information historically included in copyright notices, as well as additional useful information for consumers, such as the terms and conditions for use.

6. EXCLUSIVE RIGHTS

The Copyright Act grants copyright owners certain exclusive rights that, together, comprise the bundle of rights known as copyright. (Limitations on the exclusive rights and infringement of the rights are discussed in subsequent sections. The fact that a particular use of a copyrighted work is said to implicate one or more of the rights, therefore, does not necessarily mean that such use is an infringement or unlawful.)

The exclusive rights of the copyright owner include --

(1) to reproduce the copyrighted work in copies or phonorecords;

(2) to prepare derivative works based upon the copyrighted work;

(3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending;

(4) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and motion pictures and other audiovisual works, to perform the copyrighted work publicly; and

---

[199] The Berne Convention prohibits member states from conditioning copyright protection for works of Berne nationals on the compliance with formalities. *See* Article 5 of the Berne Convention *infra* note 439.

(5) in the case of literary, musical, dramatic, and choreographic works, pantomimes, and pictorial, graphic, or sculptural works, including the individual images of a motion picture or other audiovisual work, to display the copyrighted work publicly.[200]

These rights, in most instances, have been well elaborated by Congress and the courts in both "conventional" and digital contexts. For the most part, the provisions of the current copyright law serve the needs of creators, owners, distributors, users and consumers of copyrighted works in the NII environment. In certain instances, small changes in the law may be necessary to ensure public access to copyrighted works while protecting the rights of the intellectual property owner.

a. THE RIGHT TO REPRODUCE THE WORK

The fundamental right to reproduce copyrighted works in copies and phonorecords[201] will be implicated in innumerable NII transactions. Indeed, because of the nature of computer-to-computer communications, it will be implicated in most NII transactions. For example, when a computer user accesses a document resident on another computer, the image on the user's screen exists -- under contemporary technology -- only by virtue of the copy that is *reproduced* in the user's computer memory. It has long been clear under U.S. law that the placement of copyrighted material into a computer's memory is a reproduction of that material (because the work in memory then may be, in the

---

200 17 U.S.C. § 106 (1988 & Supp. V 1993). Section 106(A) grants additional rights for certain works of visual art in single copies or limited editions. The development of the NII does not raise unique issues with respect to those rights. *See* 17 U.S.C. § 106(A) (Supp. V 1993).

201 *See* 17 U.S.C. § 101 (1988) (definitions of "copies" and "phonorecords").

law's terms, "perceived, reproduced, or . . . communicated . . . with the aid of a machine or device").[202]

The 1976 Copyright Act, its legislative history, the *CONTU Final Report*, and repeated holdings by courts make it clear that in each of the instances set out below, one or more copies is made.[203]

- When a work is placed into a computer, whether on a disk, diskette, ROM, or other storage device or in RAM for more than a very brief period, a copy is made.[204]
- When a printed work is "scanned" into a digital file, a copy -- the digital file itself -- is made.
- When other works -- including photographs, motion pictures, or sound recordings -- are digitized, copies are made.

---

[202] In 1978, the *CONTU Final Report* noted, "[T]he application of principles already embodied in the language of the [current] copyright law achieves the desired substantive legal protection for copyrighted works which exist in machine-readable form. The introduction of a work into a computer memory would, consistent with the [current] law, be a reproduction of the work, one of the exclusive rights of the copyright proprietor." *CONTU Final Report* at 40. *See also MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 519 (9th Cir. 1993), *cert. denied*, 114 S. Ct. 671 (1994); *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255, 260 (5th Cir. 1988); *Advanced Computer Services v. MAI Systems Corp.*, 845 F. Supp. 356 (E.D. Va. 1994); *Triad Systems Corp. v. Southeastern Express Co.*, 1994 U.S. Dist. LEXIS 5390 (N.D. Cal. March 18, 1994); 2 NIMMER ON COPYRIGHT § 8.08[A] (1994).

[203] That copying has occurred does not necessarily mean that infringement has occurred. When copying is (1) authorized by the copyright owner, (2) exempt from liability as a fair use, (3) otherwise exempt under the provisions of Sections 108-119 or Chapter 10 of the Copyright Act, or (4) of such a small amount as to be *de minimis*, then there is no infringement liability.

[204] *See, e.g., MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511, 519 (9th Cir. 1993). (While this court's determination with respect to fair use may be open to question, its holding that booting a PC involves copying the operating system seems quite unexceptional.)

- Whenever a digitized file is "uploaded" from a user's computer to a bulletin board system (BBS) or other server, a copy is made.
- Whenever a digitized file is "downloaded" from a BBS or other server, a copy is made.
- When a file is transferred from one computer network user to another, multiple copies generally are made.[205]
- Under current technology, when an end-user's computer is employed as a "dumb" terminal to access a file resident on another computer such as a BBS or Internet host, a copy of at least the portion viewed is made in the user's computer. Without such copying into the RAM or buffer of the user's computer, no screen display would be possible.

b. THE RIGHT TO PREPARE DERIVATIVE WORKS

The copyright law grants copyright owners the right to control the abridgment, adaptation, translation, revision or other "transformation" of their works.[206] A user who

---

[205] For example, if an author transfers a file (such as a manuscript) to a publisher with an Internet account, copies will typically, at a minimum, be made (a) in the author's Internet server, (b) in the publisher's Internet server, (c) in the publisher's local area network server, and (d) in the editor's microcomputer. It has been suggested that such "copying" of files in intermediate servers is only of transitory duration and consequently not covered by the reproduction right. However, it is clear that if the "copy" exists for more than a period of transitory duration, the reproduction right is implicated. Whether such reproduction is an infringement would be a separate determination.

[206] *See* 17 U.S.C. § 106(2) (1988). "A 'derivative work' is a work based upon one or more preexisting works, such as a translation, musical arrangement, dramatization, fictionalization, motion picture version, sound recording, art reproduction, abridgment, condensation, or any other form in which a work may be recast, transformed, or adapted. A work consisting of editorial revisions, annotations, elaborations, or other modifications which, as a whole, represent an original work of authorship, is a 'derivative work.'" 17 U.S.C. § 101 (1988) (definition of "derivative work").

modifies -- by annotating, editing, translating or otherwise significantly changing -- the contents of a downloaded file creates a derivative work. Derivative works may also be created by transforming a work, such as an audiovisual work, into an interactive work.

c. THE RIGHT TO DISTRIBUTE COPIES

Before addressing issues raised by the distribution right in the context of the NII, it is necessary to understand its application and limitations with respect to conventional modes of exploitation and infringement.

The right to distribute legitimate copies of works is substantially circumscribed by the "first sale" doctrine:

> Notwithstanding the provisions of section 106(3), the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.[207]

This means that the copyright owner generally has only the right to authorize or prohibit the *initial* distribution of a particular *lawful* copy of a copyrighted work.[208] It is important to understand, however, that the distribution of an *unlawfully* made (*i.e.*, infringing) copy will subject any distributor to liability for infringement.[209]

One court decision has construed the unauthorized downloading of digitized photographic images (whose

---

[207] 17 U.S.C. § 109(a) (1988). *See* discussion *infra* pp. 90-95.

[208] *See* discussion of rental rights for computer programs and sound recordings *infra* p. 91.

[209] Furthermore, with respect to international distributions, Section 602 of the Copyright Act makes unauthorized importations a violation of the distribution right. *See* discussion *infra* pp. 107-09.

reproduction was unauthorized) by BBS subscribers as "implicating" the distribution right.[210] The discussion in *Playboy Enterprises Inc. v. Frena*[211] reflects the reach of the distribution right with respect to infringing copies:

> Public distribution of a copyrighted work is a right reserved to the copyright owner, and usurpation of that right constitutes infringement . . . . [Playboy Enterprise's] right under 17 U.S.C. §106 to distribute copies to the public has been implicated by Defendant Frena [the BBS operator]. Section 106(3) grants the copyright owner "the exclusive right to sell, give away, rent or lend any material embodiment of his work." There is no dispute that Defendant Frena supplied a product containing unauthorized copies of a copyrighted work. It does not matter that Defendant Frena claims it did not make the copies itself.[212]

The court may not have focused on the reproduction right, apparently because of its uncertainty whether the operator of the bulletin board system could itself be held to have reproduced a work that was (a) uploaded by one subscriber[213] and (b) downloaded by another. (As discussed below, the BBS operator publicly displayed the works by the same conduct, and was found liable by the court for infringing the display right.)

Whether the litigants in *Playboy* put the issue properly in dispute or not, the right to distribute copies of a work has

---

[210] The court elsewhere in its opinion, in a small but perhaps significant deviation from conventional usage, appears to use "implicate" to mean "infringe" rather than "involve."

[211] 839 F. Supp. 1552 (M.D. Fla. 1993).

[212] *Id.* at 1556.

[213] Whether such reproduction was legally performed by the subscriber, the BBS operator, or both is not clear.

traditionally covered the right to convey a possessory interest in a tangible copy of the work. Indeed, the first sale doctrine implements the common law's abhorrence of restraints on alienation of property by providing that the distribution right does not generally prevent owners of lawfully made copies from alienating them in a manner of their own choosing.[214] It is clear that a Frena subscriber, at the end of a transaction, possessed a copy of a Playboy photograph, but it is perhaps less clear whether, under the current law, Frena "distributed" that photograph and whether Frena or the subscriber "reproduced" it (and, if the latter, whether current law clearly would have made Frena contributorily liable for the unauthorized reproduction).[215]

In a similar case, *Sega Enterprises Ltd. v. MAPHIA*,[216] a court, on a motion for a preliminary injunction, made findings of fact regarding (a) the use of a bulletin board system to "make and distribute" copies of copyrighted video games, (b) the "unauthorized copying and distribution" of the games on the bulletin board, and (c) the profits made by the defendant from the "distribution" of the games on the bulletin board. The court's conclusions of law held that the reproduction right was infringed but apparently did not reach a like conclusion with respect to the distribution right.

---

214 Owners of copyrights in computer programs and sound recordings have the right to control post-first-sale rentals of copies of their works; owners of copyrights in other works do not. *See* 17 U.S.C. § 109 (1988 & Supp. V 1993). This inconsistency may be important in the NII context, particularly with respect to "multimedia works" that are neither expressly nor self-evidently in any particular category of copyrighted work (and whose treatment under various exemptions and special provisions may thus be unclear). *See* discussion of multimedia works *supra* pp. 41-45.

215 *See* discussion of contributory infringement and vicarious liability *infra* pp. 109-14.

216 857 F. Supp. 679 (N.D. Cal. 1994).

d. THE RIGHT TO PERFORM THE WORK PUBLICLY

The public performance right is available to all types of "performable" works -- literary, musical, dramatic, and choreographic works, pantomimes, motion pictures, and other audiovisual works -- with the exception of sound recordings.[217] While some have urged that many, if not all, NII transactions be characterized as "performances," it is important to understand:

- the definition of "perform" in the copyright law,[218]
- that only "public" performances are covered by the copyright law,[219] and
- the limitations set out in the statute that render the performance right inapplicable in a variety of circumstances (mostly of a nonprofit nature).[220]

---

217 *See* 17 U.S.C. § 106(4) (1988).

218 "To 'perform' a work means to recite, render, play, dance, or act it, either directly or by means of any device or process or, in the case of a motion picture or other audiovisual work, to show its images in any sequence or to make the sounds accompanying it audible." 17 U.S.C. § 101 (1988) (definition of "perform").

219 To perform or display a work "publicly" means --

> (1) to perform or display it at a place open to the public or at any place where a substantial number of persons outside of a normal circle of a family and its social acquaintances is gathered; or
>
> (2) to transmit or otherwise communicate a performance or display of the work to a place specified by clause (1) or to the public, by means of any device or process, whether the members of the public capable of receiving the performance or display receive it in the same place or in separate places and at the same time or at different times.

17 U.S.C. § 101 (1988) (definition of "publicly").

220 *See* 17 U.S.C. § 110 (1988).

A distinction must be made between transmissions of *copies* of works and transmissions of *performances* or *displays* of works.[221] When a copy of a work is transmitted over wires, fiber optics, satellite signals or other modes in digital form so that it may be captured in a user's computer, without the capability of simultaneous "rendering" or "showing," it has rather clearly not been performed. Thus, for example, a file comprising the digitized version of a motion picture might be transferred from a copyright owner to an end user via the Internet without the public performance right being implicated. When, however, the motion picture is "rendered" -- by showing its images in sequence -- so that users with the requisite hardware and software might watch it *with or without copying the performance*, then, under the current law, a "performance" has occurred.

The "public" nature of a performance -- which brings it within the scope of copyright -- is sufficiently broadly defined to apply to multiple individual viewers who may watch a work being performed in a variety of locations at several different times. Courts have repeatedly imposed public performance infringement liability upon entities that, for example, develop novel modes of delivering motion picture performances to customers and advance novel legal arguments as to why their performances are not "public."[222] Therefore, in the context of the NII, the fact that performances and displays may occur in diverse locations

---

221 The current law addresses only transmissions of "performances" and "displays."

222 *See, e.g., Columbia Pictures Indus. v. Redd Horne, Inc.*, 749 F.2d 154 (3d Cir. 1984) (video store operator liable for public performance violation where he rented tapes of motion pictures to customers and provided semi-private screening rooms where the tapes could be viewed); *Columbia Pictures Indus. v. Aveco, Inc.*, 800 F.2d 59 (3d Cir. 1986) (same result where customers also rented rooms for viewing); *On Command Video Corp. v. Columbia Pictures Indus.*, 777 F. Supp. 787 (N.D. Cal. 1991) (infringement found where hotel guests in rooms selected tapes to be played on remotely controlled console in hotel basement with signal then sent to rooms).

and at different times will not exempt them from the public performance and public display rights.

e. THE RIGHT TO DISPLAY THE WORK PUBLICLY

The right to display a work publicly is extremely significant in the context of the NII. To display a work means to "show a copy of it, either directly or by means of a . . . television image, or any other device or process . . . ."[223] The complex analyses to determine whether a particular transmission might amount to a "distribution" or a "performance" are rarely necessary in this context. The definition of "display" clearly encompasses, for instance, the actions of the defendant BBS operator in the *Playboy* case.[224] Thus, when any NII user visually "browses" through copies of works in any medium (but not through a list of titles or other "menus" that are not copies of the works),[225] a public display of at least a portion of the browsed work occurs. A display is "public" on the same terms as a performance is "public"; therefore, many NII uses would appear to fall within the law's current comprehension of "public display."[226] Whether such acts would be an infringement would be determined by separate infringement analyses.

---

223 17 U.S.C. § 101 (1988 & Supp. V 1993) (definition of "display").

224 *See* discussion of *Playboy* case *supra* pp. 68-69 and *infra* pp. 81, 120-21.

225 Of course, to the extent that such lists or menus are protectible under the Copyright Act, the authors of such lists would have the exclusive right to publicly display them.

226 The copyright law's legislative history, describing the introduction of the display right, distinguishes displays "on a screen or tube" from reproductions. This language, written before the advent of the personal computer, applies easily to displays with which Congress was familiar in 1976 (those rendered by broadcast television receivers), but is inapplicable to digital "browsing" where the law itself clearly -- without resort to explanatory Congressional language -- defines such acts as implicating the display *and* reproduction rights.

7. LIMITATIONS ON EXCLUSIVE RIGHTS

The copyright law provides a number of exceptions to the "exclusive" rights of copyright owners. The Copyright Act specifies that certain uses of copyrighted works are outside the control of the copyright owner.[227] While many regard these exceptions as rights of users, they are, as a technical matter, outright exemptions from liability or affirmative defenses to what would otherwise be acts of infringement.

a. FAIR USE

The most significant and, perhaps, murky of the limitations on a copyright owner's exclusive rights is the doctrine of fair use.[228] Fair use is an affirmative defense to an action for copyright infringement.[229] It is potentially available with respect to all manners of unauthorized use of all types of works in all media. When it exists, the user is not required to seek permission from the copyright owner or to pay a license fee for the use.

---

[227] Although sometimes referred to as "rights" of the users of copyrighted works, "fair use" and other exemptions from infringement liability are actually limitations on the rights of the copyright owners. Thus, as a technical matter, users are not granted affirmative "rights" under the Copyright Act; rather, copyright owners' rights are limited by exempting certain uses from liability. It has been argued, however, that the Copyright Act would be unconstitutional if such limitations did not exist, as they reduce First Amendment and other concerns. Others have argued that fair use is an anachronism with no role to play in the context of the NII.

[228] *See* 17 U.S.C. § 107 (1988 & Supp. V 1993). The judicially created doctrine, although now codified in the Copyright Act, has been described as "so flexible as virtually to defy definition." *See Time Inc. v. Bernard Geis Assoc.*, 293 F. Supp. 130, 144 (S.D.N.Y. 1968).

[229] *Campbell v. Acuff-Rose Music, Inc.*, 114 S. Ct. 1164, 1177 (1994). As an affirmative defense, the burdens of persuasion and coming forward with evidence both must be carried by defendants to avoid liability (*i.e.*, a copyright owner need not prove an accused use not fair, but, rather, the defendant must prove its fairness).

The doctrine of fair use is rooted in some 200 years of judicial decisions. The most common example of fair use is when a user incorporates some portion of a pre-existing work into a new work of authorship.[230] For example, quotation from a book or play by a reviewer, or the incidental capturing of copyrighted music in a segment of a television news broadcast is fair use. In the recent *Campbell* case, the Supreme Court expressly accepted the proposition that such "transformative" uses are more favored in fair use analyses than uses that amount to little more than verbatim copying.[231] As one moves away from such transformative uses into the area of uses that -- for practical purposes -- compete with the copyright owner's exploitation of the work, the analysis becomes more difficult (as the number of litigated cases grows).

Before examining the doctrine developed by the courts, it is useful to examine the statutory language concerning fair use. Section 107 of the Copyright Act provides:

> Notwithstanding the provisions of sections 106 and 106A, the fair use of a copyrighted work, including such use by reproduction in copies or phonorecords or by any other means specified by that section [sic], for purposes such as criticism, comment, news reporting, teaching (including multiple copies for classroom use), scholarship, or research, is not an infringement of copyright. In determining whether the use made of a work in any particular case is a fair use the factors to be considered shall include --
>
> (1) the purpose and character of the use, including whether such use is of a

---

230 *Id.*

231 *See id.*

> commercial nature or is for nonprofit educational purposes;
>
> (2) the nature of the copyrighted work;
>
> (3) the amount and substantiality of the portion used in relation to the copyrighted work as a whole; and
>
> (4) the effect of the use upon the potential market for or value of the copyrighted work.
>
> The fact that a work is unpublished shall not itself bar a finding of fair use if such finding is made upon consideration of all the above factors.[232]

The language may usefully be divided into two parts: the first sentence, which is largely tautological ("fair use . . . is not an infringement of copyright"), and the analysis required by the second sentence. The recitation of assorted uses in the middle of the first sentence has been held neither to prevent a fair use analysis from being applied to other "unlisted" uses nor to create a presumption that the listed uses are fair.[233] It does, however, provide some guidance on the types of activities which might be considered fair use.

The core of Section 107 is the second sentence, in which Congress elaborates a test similar to that articulated by Justice Story more than 150 years ago.[234] It is clear that courts must evaluate all four factors in determining whether a particular use is fair, but may also take into account unenumerated "extra" factors, when appropriate.

---

232 17 U.S.C. § 107 (1988 & Supp. V 1993).

233 *Harper & Row*, *supra* note 34, at 561.

234 Justice Story stated that courts should "look to the nature and the objects of the selections made, the quantity and value of the material used, and the degree in which the use may prejudice the sale, or diminish the profits, or supersede the objects, of the original work." *Folsom v. Marsh*, 9 F. Cas. 342, 348 (C.C.D. Mass. 1841) (No. 4,901).

THE PURPOSE AND CHARACTER OF THE USE

Although the fourth factor has repeatedly been held to be the most important of the four factors, the first factor often plays a major role in determining the result when a defendant asserts a fair use defense.

The first factor contrasts "commercial" uses with "nonprofit educational" uses. There is, of course, a continuum between these two opposites, with most uses falling neatly into neither the favored nor disfavored pigeonhole. The weight of the factor may be inferred from the Supreme Court's very limited fair use jurisprudence: In the four fair use cases that it has decided, one noncommercial, noneducational use was held fair,[235] two commercial uses were held unfair,[236] and one commercial use was held potentially fair.[237]

In the *Sony* case, the Court announced a "presumption" that helps explain courts' near universal rejection of fair use claims in commercial contexts. It declared that all commercial uses were to be presumed unfair,[238] thus placing a substantial burden on a defendant asserting that a particular commercial use is fair. The

---

235 *See Sony*, *supra* note 22, at 456 (videotaping by individuals at home of off-the-air television broadcast programming for purpose of "time-shifting" -- as distinguished from "librarying" -- held fair use).

236 *See Stewart v. Abend*, 495 U.S. 207, 216 (1990) (theatrical and television distribution of motion picture over objection of owner of renewal copyright in underlying short story held infringing); *Harper & Row*, *supra* note 34, at 569 ("Nation" magazine's scoop of "Time" magazine's first serial rights in President Ford's memoirs held infringing, notwithstanding newsworthiness of the account of the Nixon pardon set out therein).

237 *See Campbell*, *supra* note 229, at 1177-79 (parodic lyrics of popular song not *per se* unfair by virtue of commercial purpose of parody; case remanded for further factual determination).

238 *See* 464 U.S. at 451. The subsequent *Campbell* decision indicates that the presumption is strongest in cases of "mere duplication" and weakest when a second commercial comer makes a transformative use and creates a derivative work. *See Campbell*, *supra* note 229, at 1177.

Campbell case made clear that the *Sony* presumption was of greatest applicability in the context of verbatim copying, thus giving greater leeway to commercial but transformative uses.

For the most part, "mere reproduction" has fared rather badly in court under the Copyright Act, even in actual and ostensible educational contexts.[239] Courts have denied fair use,[240] for example, to:

- a teacher's reproduction, in text materials, of the copyrighted material of another teacher;[241]
- a school system's practice of taping educational broadcasts for later use in classrooms;[242] and
- off-campus copy shops' manufacture -- per teachers' specifications -- and distribution of photocopies of anthologies containing portions of textbooks and periodicals.[243]

---

239 Congress has expressly declined to enact a specific exemption from copyright liability for educational uses. *See* HOUSE REPORT at 66-67, *reprinted in* 1976 U.S.C.C.A.N. 5680. Cases holding reproduction of an entire work as a fair use are few. In *Haberman v. Hustler Magazine, Inc.*, 626 F. Supp. 201, 212 (D. Mass. 1986) a magazine's reproduction of an artist's post cards was found to be fair use because there was no market harm.

240 The consequences of denying a fair use defense in certain legitimate educational contexts are far smaller than in the commercial context. Under the provisions of Section 504(c)(2), statutory damages (damages that may be imposed without proof of the quantum of actual harm to the copyright owner) may not be imposed against a nonprofit educational institution, its employees or agents -- when acting within the scope of their employment -- in respect of copying that they performed with reasonably based grounds for believing the copying was fair use. 17 U.S.C. § 504(c)(2) (1988).

241 *Marcus v. Rowley*, 695 F.2d 1171 (9th Cir. 1983).

242 *Encyclopaedia Britannica Educ. Corp. v. Crooks*, 558 F. Supp. 1247 (W.D.N.Y. 1983).

243 *Basic Books, Inc. v. Kinko's Graphics Corp.*, 758 F. Supp. 1522 (S.D.N.Y. 1991).

THE NATURE OF THE COPYRIGHTED WORK

This second factor tends to play a less significant role than the first in fair use litigation. Courts have held that this factor weighs in the copyright owner's favor when works of fiction[244] and unpublished works[245] are copied, and in the defendant's favor when factual works[246] and published works[247] are copied. In the NII context, it is quite possible that a court might evaluate whether a work in digital form should be treated differently from a work in a conventional print or other analog form for the purposes of evaluating this factor.

THE AMOUNT AND SUBSTANTIALITY OF THE PORTION USED

This is probably the least important factor, given that the taking of even a small amount -- if it is considered the "heart" of the work -- can lead to a finding of infringement.[248] Indeed, the most frequently cited copyright treatise devotes only four sentences to its discussion:

> The third factor listed in § 107 is "the amount and substantiality of the portion used in relation to the copyrighted work as a whole." This raises an issue discussed in a preceding section [concerning the quantum of

---

244 *See Twin Peaks Prods., Inc. v. Publications Int'l, Ltd.*, 996 F.2d 1366, 1376 (2d Cir. 1993).

245 *See New Era Publications Int'l, ApS v. Henry Holt & Co.*, 873 F.2d 576 (2d Cir. 1989), *cert. denied*, 493 U.S. 1094 (1990).

246 *See National Rifle Ass'n v. Handgun Control Fed'n*, 15 F.3d 559, 562 (6th Cir. 1994).

247 *See New Era Publications Int'l, ApS v. Carol Publishing Group*, 904 F.2d 152, 157 (2d Cir. 1990).

248 *See Harper & Row, supra* note 34, at 569 (taking of some 300 words held infringing).

> copying that constitutes infringement], and may be regarded as relating to the question of substantial similarity rather than whether the use is "fair." This includes a determination of not just quantitative, but also qualitative substantiality. In any event, whatever the use, generally it may not constitute a fair use if the entire work is reproduced.[249]

THE ECONOMIC EFFECT OF THE USE

Courts have repeatedly identified this as the most significant of the four factors.[250] It is important to recall that it weighs against a defendant not only when a current market exists for a particular use, but also when a potential market could be exploited by the copyright owner. Harm in either market will, in most instances, render a use unfair.[251]

The Supreme Court's decisions demonstrate the significant weight given this factor:

- In *Sony*, the absence of any market for home taping licenses, combined with the testimony of some copyright owners that they were indifferent to home copying, led the Court to conclude that there was no cognizable harm.[252]

---

249 3 NIMMER ON COPYRIGHT § 13.05[A] (1993) (footnotes omitted).

250 *See Stewart v. Abend*, *supra* note 236, at 238.

251 *Cf. American Geophysical Union v. Texaco, Inc.*, 37 F.3d 881, 895 (2d Cir. 1994) ("analysis under the fourth factor must focus on the effect of [defendant's] photocopying upon the potential market for or value of these individual articles"); *Salinger v. Random House, Inc.*, 811 F.2d 90, 99 (2d Cir.), *cert. denied*, 484 U.S. 890 (1987) (protecting potential market for author's letters notwithstanding author's profound disinclination ever to publish them).

252 *See Sony*, *supra* note 22, at 443-47 (plaintiffs "failed to carry their burden with regard to [the harm of] time-shifting . . . . Harm from time-shifting is speculative and, at best, minimal").

- In *Harper & Row*, the Court accepted the argument that the defendant's "scooping" of "Time" magazine's right to make the first serial publication of President Ford's memoirs, which caused cancellation of the magazine's contract with Harper & Row, caused harm to the copyright owner.[253]

- In *Stewart v. Abend*, performances of a movie palpably harmed the economic interests of the owner of the copyright in the underlying short story.[254]

- In *Campbell*, the Court -- because the parody was "transformative" -- rejected the court of appeals' determination that the commercial purpose of the parody required the parodist to overcome *Sony*'s presumption of market harm.[255]

It is reasonable to expect that courts would approach claims of fair use in the context of the NII just as they do in "traditional" environments. Commercial uses that involve no "transformation" by users and harm actual or potential markets will likely always be infringing, while nonprofit educational transformative uses will likely often be fair. Between these extremes, courts will have to engage in the same type of fact-intensive analysis that typifies fair use litigation and frustrates those who seek "bright lines" clearly separating the lawful from the unlawful.[256]

---

253 *See Harper & Row*, *supra* note 34, at 562.

254 *See Stewart v. Abend*, *supra* note 236, at 238.

255 *See Campbell*, *supra* note 229, at 1173.

256 The inability of our common law system to provide guidance covering every possible permutation of behavior is not necessarily a weakness. By permitting courts to reach decisions on a case-by-case basis, our system permits both necessary gap-filling and jurisprudential evolution without requiring repeated pleas to Congress for additional elaboration.

Courts in two cases decided to date concerning the unauthorized "uploading" and "downloading" of copyrighted materials to and from bulletin board services have held that such uses were not fair uses.[257] In the *Playboy* case, the court characterized the issue as whether "unrestricted and widespread conduct of the sort engaged in by the defendant bulletin board system operator (whether in fact engaged in by the defendant or others) would result in a substantially adverse impact on the potential market for or value of [Playboy's copyrighted photographs],"[258] and determined that it would. This, in turn, led the court to conclude that there was market harm and, thus, infringement.

In the *MAPHIA* case,[259] the court found that Sega established a *prima facie* case of direct and contributory infringement in the operation of the defendant's bulletin board system (where Sega's copyrighted video game programs were uploaded and downloaded). In issuing a preliminary injunction, the court found that each of the four factors weighed against a finding of fair use, but found that the fourth factor, in particular, weighed "heavily" against such a finding:

> Based on Defendants' own statement that 45,000 bulletin boards like MAPHIA operate in this country, it is obvious that should the unauthorized copying of Sega's video games by Defendants and others become widespread, there would be a substantial and immeasurable adverse effect on the market for Sega's copyrighted video game programs.[260]

---

257 *See supra* notes 210-16 and accompanying text (discussing *Playboy* and *MAPHIA* decisions).

258 *Playboy*, *supra* note 211, at 1558.

259 *MAPHIA*, *supra* note 216.

260 *MAPHIA*, *supra* note 216, at 688.

Cases already decided in other contexts will give valuable guidance to courts confronted with NII-related cases. Just as courts have distinguished between home use of a VCR to make time-shifting tapes of materials broadcast over the air (fair use) and school systems' attempts to use VCRs to download broadcast instructional materials for the creation of an educational film library (not fair use), courts will subject users of copyrighted works available via the NII to like scrutiny. Educational uses that serve the same ends and are constrained in the same manner as the copying permitted under the Classroom Guidelines[261] will likely be fair, while attempts to supplant the market for books, films, software and other materials by proliferating them without permission via the NII will likely be infringing.

Finally, it may be that technological means of tracking transactions and licensing will lead to reduced application and scope of the fair use doctrine. Thus, one sees in *American Geophysical Union v. Texaco Inc.*,[262] a court establishing liability for the unauthorized photocopying of journal articles based in part on the court's perception that obtaining a license for the right to make photocopies via the Copyright Clearance Center was not unreasonably burdensome. The court also speculated that should the proprietors fail to establish a licensing system for the use in question, then the balance might shift in favor of a finding of fair use.

---

261 *See infra* pp. 83-84.

262 802 F. Supp. 1 (S.D.N.Y. 1992), *aff'd*, 37 F.3d 881, 892 (2d Cir. 1994). The Court of Appeals noted, with respect to Texaco's argument that such photocopying was "reasonable and customary," that "whatever validity this argument might have had before the advent of . . . photocopying licensing . . . the argument today is insubstantial." This suggests that, together with Section 108's proscription on most "systematic" photocopying (discussed below), the precedential value of *Williams & Wilkins Co. v. United States*, 487 F.2d 1345 (Ct. Cl. 1973) (Federal libraries not liable for infringement where no licensing option existed as between full price subscription to scientific journals and holding of fair use) may be reduced.

FAIR USE GUIDELINES FOR LIBRARIES AND EDUCATIONAL INSTITUTIONS

The fair use, library copying and educational use provisions of the current copyright law have been the subject of four sets of "guidelines" for libraries and educational institutions, to which contending parties agreed, that are enshrined at various places in the legislative history.[263] The result has been, in certain circumstances, a quantitative gloss on the construction of fair use and library copying privileges. For instance, the classroom guidelines generally permit the copying, for educational purposes, of short extracts of works, provided that the copying is spontaneously done or requested by the instructor (and the copies are neither used nor re-made repeatedly over time).[264]

THE CONFERENCE ON FAIR USE

To determine whether educational or library guidelines of a similar nature might prove attainable in the NII context, the Working Group has convened a conference of more than 60 interested parties who have met more or less monthly since September 1994. To date, no formal guidelines have been the subject of agreement, but it appears reasonable to anticipate that drafts now in preparation may be formalized as guidelines before the end of 1995. The participants in the conference are discussing several areas, including multimedia, library preservation, "browsing" and "distance learning."

In most such instances, current law often provides clear rules while the "digital difference" tests, bends or sometimes breaks those rules. For example, library

---

263 Existing guidelines cover certain copying by and for teachers in the classroom context, the copying of music for educational purposes, the copying of relatively recent journal articles by one library for another, and the off-air videotaping of educational broadcast materials.

264 *See* HOUSE REPORT at 68-74, *reprinted in* 1976 U.S.C.C.A.N. 5681-88.

preservation is covered in some detail in the analog context (paper, microfiche, etc.) in Section 108 of the law, but that section's terms do not appear to encompass digital copying in the quantities to which libraries have become accustomed,[265] and many conventional distance learning issues are arguably covered -- with respect to the performance but not the reproduction of works -- in Section 110.

Some participants have suggested that the United States is being divided into a nation of information "haves" and "have nots" and that this could be ameliorated by ensuring that the fair use defense is broadly generous in the NII context. The Working Group rejects the notion that copyright owners should be taxed -- apart from all others -- to facilitate the legitimate goal of "universal access."[266]

Should the participants in the Conference on Fair Use fail to agree on appropriate guidelines, the Working Group may conclude that the importance of such guidelines may necessitate regulatory or legislative action in that area.

b. LIBRARY EXEMPTIONS

Section 108 of the Copyright Act provides that in certain circumstances and under certain conditions it is not an infringement of copyright for a library or archives, or its employees acting within the scope of their employment,[267] to reproduce or distribute one copy or phonorecord of a

---

[265] *See* discussion of the Working Group's proposed amendments to Section 108 *infra* pp. 225-27.

[266] The laws of economics and physics protect producers of equipment and tangible supplies to a greater extent than copyright owners. A university, for example, has little choice but to pay to acquire photocopy equipment, computers, paper and diskettes. It may, however, seek subsidization from copyright owners by arguing that its copying and distribution of their works should, as a fair use, not be compensated.

[267] Hereinafter, the term "library" will be used to refer to a library or archives, or any of its employees acting within the scope of their employment.

work[268] under circumstances that would typically not amount to fair use. The conditions of the library exemption are that (1) the reproduction or distribution must be made without any purpose of direct or indirect commercial advantage; (2) the collections of the library must be open to the public or available not only to researchers affiliated with the library, but also to other persons doing research in a specialized field; (3) the reproduction or distribution of the work must include a notice of copyright;[269] and (4) a specific exemption in subsections (b) through (g) of Section 108 applies.

The exemptions granted under Section 108 extend only to isolated and unrelated reproduction of a single copy or phonorecord of the same material on separate occasions,[270] and do not apply to (1) musical works; (2) pictorial, graphic, or sculptural works; or (3) motion pictures or other audiovisual works, except news programs.[271]

The circumstances under which a library may reproduce or distribute a copyrighted work without infringement liability include:

ARCHIVAL COPIES

A library may reproduce and distribute a copy or phonorecord of an unpublished work reproduced in facsimile form if the sole purpose is preservation and

---

[268] *See* 17 U.S.C. § 108(a) (1988). Section 108 limitations are *additional* exemptions provided specifically for certain libraries. Libraries, of course, may also take advantage of fair use privileges or any other exemptions to the Copyright Act (*see* 17 U.S.C. § 108(f)(4) (1988)), but the exemptions in Section 108 generally exceed fair use. *See generally Report of the Register of Copyrights on Library Reproduction of Copyrighted Works* (1983).

[269] *See* 17 U.S.C. § 108(a) (1988).

[270] *See* 17 U.S.C. § 108(g) (1988).

[271] 17 U.S.C. § 108(h) (1988).

security, and if the copy or phonorecord reproduced is currently in the collection of the library.[272] The House Report notes that this right "would extend to any type of work, including photographs, motion pictures and sound recordings." However, the copy or phonorecord made must be in "facsimile form." A library may "make photocopies of manuscripts by microfilm or electrostatic process, but [may] not reproduce the work in 'machine-readable' language for storage in an information system."[273] Thus, this exemption does not allow for preservation in electronic or digital form.

REPLACEMENT COPIES

A library may reproduce a published work duplicated in facsimile form solely for the purpose of replacing a copy or phonorecord that is damaged, deteriorated, lost or stolen, if the library has, after reasonable efforts, determined that an unused replacement cannot be obtained at a fair price.[274] Again, the copy or phonorecord made must be in "facsimile form." The exemption does not allow for replacement of a published work by reproduction in digital form (at least when the original copy of the published work was not in digital form).

ARTICLES AND SHORT EXCERPTS FOR USERS

A library may make and distribute a copy of one article or other contribution to a copyrighted collection or periodical issue, or a copy or phonorecord of a small part of any other copyrighted work at the request of a user, subject to two conditions.[275] First, the copy or phonorecord must

---

272 *See* 17 U.S.C. § 108(b) (1988).

273 HOUSE REPORT at 75, *reprinted in* 1976 U.S.C.C.A.N. 5689.

274 17 U.S.C. § 108(c) (1988); *see* HOUSE REPORT at 75, *reprinted in* 1976 U.S.C.C.A.N. 5689.

275 17 U.S.C. § 108(d) (1988).

become the property of the user, and the library or archives must have no notice that the copy or phonorecord will be used for any purpose other than private study, scholarship, or research. Second, the library or archives must prominently display a warning of copyright at the place where orders are accepted and on its order form.[276]

OUT-OF-PRINT WORKS FOR SCHOLARLY PURPOSES

A library may make and distribute a copy or phonorecord of an entire work if it has determined that a copy or phonorecord of the copyrighted work cannot be obtained at a fair price, subject to two additional conditions.[277] First, the copy or phonorecord must become the property of the user, and the library or archives must have no notice that the copy or phonorecord will be used for any purpose other than private study, scholarship, or research. Second, the library or archives must prominently display a warning of copyright at the place where orders are accepted and on its order form.[278]

NEWS PROGRAMS

A library may reproduce and distribute by lending a limited number of copies of an audiovisual news program.[279]

INTERLIBRARY LOAN

The Copyright Act allows a library to make single copies of copyrighted works and to enter into interlibrary arrangements, but prohibits copying "in such aggregate quantities as to substitute for a subscription to or purchase

---

276 *Id.*

277 17 U.S.C. § 108(e) (1988).

278 *Id.*

279 *See* 17 U.S.C. § 108(f)(3) (1988).

of [a copyrighted] work."[280] CONTU offered its offices to the interested parties -- copyright owners, educators and libraries -- to develop guidelines to interpret the quoted phrase. The parties were successful in defining when such copying for the purpose of "borrowing" was not done in such aggregate quantities as to substitute for the subscription to or purchase of a work. These so-called CONTU Guidelines were later included in the Conference Report on the Copyright Act of 1976.[281] The guidelines provide that a library may "borrow" not more than five copies per year of articles from the most recent five years of any journal title.[282]

The CONTU Guidelines have been an effective means to protect both the interests of copyright owners and to provide libraries a clear "safe" guide to follow in "borrowing" from other libraries.[283] In 1976, there were no readily available systems for the supply of single copies of, or for the licensing of the reproduction of multiple copies of copyrighted works. Now, that situation has changed and the continuing evolution of the NII will permit the establishment of licensing systems to supply copies or to permit users to make reproductions of works or portions of works more widely available. Indeed, a publisher's license to access or download all or a portion of the aggregated copyrighted works on a server might be viewed as the on-line equivalent of a subscription. A publisher might allow free access to a table of contents and then through an appropriate payment mechanism such as electronic cash or a credit card, license the downloading of a single article. This "publication on demand" might become an effective and economic substitute for interlibrary loan on the NII. While

---

280 17 U.S.C. § 108(g)(2) (1988).

281 *See* H.R. REP. NO. 1733, 94th Cong., 2d Sess. 72-73 (1976), *reprinted in* 1976 U.S.C.C.A.N. 5810, 5813-14 (hereinafter CONFERENCE REPORT).

282 *Id.* at 72, *reprinted in* 1976 U.S.C.C.A.N. 5813.

283 *See* discussion *supra* pp. 87-88.

the precise nature of all such systems cannot be known at this time, it is clear that the CONTU Guidelines, while remaining effective for print materials, cannot readily be generalized to "borrowing" electronic publications.

The Working Group emphasizes that the existence of systems for the supply of licensed copies of works or portions of works by electronic means does not negate the privileges conferred on libraries in Section 108(g)(2), nor do they limit "borrowing" permitted under existing voluntarily negotiated guidelines or such guidelines to set rules for interlibrary loan via the NII that may be negotiated in the future.[284] While it is clear that Section 108 does not authorize unlimited reproduction of copies in digital form, it is equally clear that Section 108(g)(2) permits "borrowing" in electronic form for interlibrary loan in the NII environment, so long as such "borrowing" does not lead to "systematic" copying. However, the existence of such licensing systems in a world of electronic publishing may make it difficult, if not impossible, to define "subscription or purchase" as intended, and equally impossible to apply the existing guidelines to all electronic transactions.

Therefore, new scenarios should be considered to avoid ambiguity and to continue to protect both the interests of copyright owners and to continue to provide libraries with a safe "borrowing" guide. Such scenarios are being considered in the on-going Conference on Fair Use. Should the parties fail to reach agreement in that forum, as noted earlier, a regulatory or legislative solution may be appropriate. Appropriate use of such electronic publishing systems by libraries can provide a ready means for avoiding not only liability for "borrowing" that exceeds that which is permitted under Section 108(g)(2) or any voluntarily negotiated guidelines developed by the concerned parties

---

[284] *See* discussion *supra* pp. 87-88.

but also any need to devote resources to consider whether the "nth" transaction is "safe."

c. FIRST SALE DOCTRINE

A fundamental tenet of copyright law, and another limitation on the exclusive rights, is the "first sale doctrine," which prevents an owner of copyright in a work from controlling subsequent transfers of copies of that work. Once the copyright owner transfers ownership of a particular copy (a material object) embodying a copyrighted work, the copyright owner's exclusive right to distribute copies of the work is "extinguished" with respect only to that particular copy.[285]

Section 109(a) of the Copyright Act provides:

> Notwithstanding the provisions of section 106(3) [which grants copyright owners the exclusive right to distribute copies or phonorecords of a work], the owner of a particular copy or phonorecord lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to sell or otherwise dispose of the possession of that copy or phonorecord.[286]

This limitation on the copyright owner's distribution right allows wholesalers who buy books to distribute those copies to retailers and retailers to sell them to consumers and consumers to give them to friends and friends to sell them in garage sales and so on -- all without the permission of (or payment to) the copyright owner of the work.

---

[285] *See T.B. Harms Co. v. Jem Records, Inc.*, 655 F. Supp. 1575, 1582 (D.N.J. 1987); *Columbia Pictures Indus., Inc. v. Aveco, Inc.*, 612 F. Supp. 315, 319-20 (M.D. Pa. 1985), *aff'd*, 800 F.2d 59 (3d Cir. 1986).

[286] 17 U.S.C. § 109(a) (1988).

The first sale doctrine allows the owner of a particular copy of a work to dispose of possession of that copy in any way -- for example, by selling it, leasing it, loaning it or giving it away. However, there is an exception to this exemption with respect to two types of works -- computer programs and sound recordings. The owner of a particular copy of a computer program or a particular phonorecord of a sound recording may not rent, lease or lend that copy or phonorecord for the purpose of direct or indirect commercial advantage.[287] These exceptions were enacted because of the ease with which reproductions of those works can be made at a lower cost than the original with minimum degradation in quality.[288] The rationale for these exceptions may apply to other types of works as more types of works become available in digital form and the "nexus" of rental and reproduction of those works "may directly and adversely affect the ability of copyright holders to exercise their reproduction and distribution rights under the Copyright Act."[289]

---

[287] *See* 17 U.S.C. § 109(b)(1)(A) (Supp. V 1993). The prohibition with respect to record rental does not apply to nonprofit libraries or nonprofit educational institutions for nonprofit purposes. *Id.* In addition, a nonprofit educational institution may transfer possession of a lawfully made copy of a computer program to another nonprofit educational institution or to faculty, staff and students. *Id.* Nonprofit libraries may also lend a computer program for nonprofit purposes if each copy has a copyright warning affixed to the package. 17 U.S.C. § 109(b)(2)(A) (Supp. V 1993). The prohibition with respect to computer program rental does not apply to a computer program "which is embodied in a machine or product and which cannot be copied during the ordinary operation or use of the machine or product" or "a computer program embodied in or used in conjunction with a limited purpose computer that is designed for playing video games and may be designed for other purposes." 17 U.S.C. § 109(b)(1)(B) (Supp. V 1993).

[288] K. Corsello, *The Computer Software Rental Amendments Act of 1990: Another Bend in the First Sale Doctrine*, 41 CATH. U. L. REV. 177, 192 (1991).

[289] *See* H.R. REP. NO. 98-987, 98th Cong., 2d Sess. 2 (1984), *reprinted in* 1984 U.S.C.C.A.N. 2898, 2899 (justifying the Record Rental Amendment of 1984).

This provision of the first sale doctrine limits only the copyright owner's distribution right; it in no way affects the reproduction right. Thus, the first sale doctrine does not allow the transmission of a copy of a work (through a computer network, for instance), because, under current technology the transmitter retains the original copy of the work while the recipient of the transmission obtains a reproduction of the original copy (*i.e.*, a *new* copy), rather than the copy owned by the transmitter. The language of the Copyright Act, the legislative history and case law make clear that the doctrine is applicable only to those situations where the owner of a particular copy disposes of physical possession of that particular copy.[290]

If the owner of a particular copy transmits a copy to another person without authorization (either from the copyright owner or the law), such a transmission would involve an unlawful reproduction of a work, and the first sale doctrine would not shield the transmitter from liability for the reproduction nor for the distribution. Under the first sale doctrine, the owner of a particular copy of a copyrighted work may distribute it, but may not reproduce it.[291] Therefore, the transmission would constitute infringement of the copyright owner's reproduction right.[292]

---

[290] *See* 17 U.S.C. § 109(a) (1988) ("the owner of a particular copy or phonorecord . . . is entitled . . . to sell or otherwise dispose of the possession of that copy or phonorecord"); HOUSE REPORT at 79, *reprinted in* 1976 U.S.C.C.A.N. 5693 (under the first sale doctrine in Section 109 "the copyright owner's exclusive right of public distribution would have no effect upon anyone who owns 'a particular copy or phonorecord lawfully made under this title' and who wishes to transfer it to someone else . . .") *See also, e.g., Columbia Pictures Indus. v. Redd Horne, Inc.*, 749 F.2d 154, 159 (3d Cir. 1984) ("first sale doctrine prevents the copyright owner from controlling the future transfer of a particular copy once its material ownership has been transferred").

[291] HOUSE REPORT at 79, *reprinted in* 1976 U.S.C.C.A.N. 5693 (under the first sale doctrine, "the owner of the physical copy or phonorecord cannot reproduce or perform the copyrighted work publicly without the copyright owner's consent").

[292] If the reproduction is lawful under another provision of the Copyright Act, the transmission would likely not be an infringement. *See infra* p. 95.

If the reproduction is unlawful, further distribution of the unlawful reproduction would not be allowed under the first sale doctrine because the copy distributed would not be one "lawfully made" under the Copyright Act, as required by the statute.

The requirement that copies distributed under the doctrine be "lawfully made" under the Copyright Act does not limit the doctrine's application to copies made or authorized by the copyright owner.[293] A copy could be "lawfully made," for example, if the reproduction is lawful under the fair use provision; the distribution of such a copy would be permitted within the limits of the first sale doctrine.

It has also been suggested that the scope of the first sale doctrine be *narrowed* to exclude copies obtained via transmission. This would mean, for instance, that if a copy of a literary work is legally purchased on-line and the copy so purchased is downloaded onto the purchaser's disk, the disk could not be resold. Clearly, the first sale doctrine should apply if the particular copy involved is in fact the copy that is further distributed, even if the copy was first obtained by transmission. Further, if the technology utilized allows the transmission of a copy without making an unlawful reproduction -- *i.e.*, no copy remains with the original owner -- the first sale doctrine would apply and the transmission would not be an infringement.

Some argue that the first sale doctrine should also apply to transmissions, as long as the transmitter destroys or deletes from his or her computer the original copy from which the reproduction in the receiving computer was made. The proponents of this view argue that at the completion of the activity, only one copy would exist between the original owner who transmitted the copy and

---

[293] *See* HOUSE REPORT at 79, *reprinted in* 1976 U.S.C.C.A.N. 5693.

the person who received it -- the same number of copies as at the beginning. However, this zero sum gaming analysis misses the point. The question is not whether there exist the same number of copies at the completion of the transaction or not. The question is whether the transaction when viewed as a whole violates one or more of the exclusive rights, and there is no applicable exception from liability. In this case, without any doubt, a reproduction of the work takes place in the receiving computer. To apply the first sale doctrine in such a case would vitiate the reproduction right.

A copyright owner's exclusive right to publicly display copies of a work is also limited by Section 109:

> Notwithstanding the provisions of section 106(5) [which grants copyright owners the exclusive right to display publicly copies of a work], the owner of a particular copy lawfully made under this title, or any person authorized by such owner, is entitled, without the authority of the copyright owner, to display that copy publicly, either directly or by the projection of no more than one image at a time, to viewers present at the place where the copy is located.[294]

Thus, an art gallery that purchases a painting may publicly display it without liability. The owner of a particular copy of an electronic audiovisual game intended for use in coin-operated equipment may also publicly perform or display that game in that equipment.[295]

---

[294] 17 U.S.C. § 109(c) (1988).

[295] Section 109(e) reversed the decision in *Red Baron-Franklin Park, Inc. v. Taito Corp.*, 883 F.2d 275 (4th Cir. 1989), *cert. denied*, 493 U.S. 1058 (1990), which held that video games could not be operated in an arcade without the permission of the copyright owner because such operation entailed violation of the copyright owner's exclusive rights to perform and display the work publicly. Section 109(e), however, does not allow the public display or performance of any other work of authorship embodied in the audiovisual game if the copyright

This exemption from liability would not apply to the public display of a copy of a work on a bulletin board system or other computer or communications network, because more than one image would likely be displayed at a time (to different viewers) and viewers would not be "present at the place where the copy is located."

The first sale doctrine allows the owner of a particular, lawfully-made copy of a work to dispose of it in any manner, with certain exceptions,[296] without infringing the copyright owner's exclusive right of distribution. It seems clear that the first sale model -- in which the copyright owner parts company with a tangible copy -- should not apply with respect to distribution by transmission, because transmission by means of current technology involves both the reproduction of the work and the distribution of that reproduction. In the case of transmissions, the owner of a particular copy of a work does not "dispose of the possession of *that* copy or phonorecord." A copy of the work remains with the first owner and the recipient of the transmission receives another copy of the work.

d. EDUCATIONAL USE EXEMPTIONS

Section 110(1) exempts from infringement liability the performance or display of a copyrighted work in the course of face-to-face teaching activities by a non-profit educational institution in a classroom or similar setting.[297]

Section 110(2) exempts from liability the transmission of a performance or display of a copyrighted work if (1) the performance or display is a regular part of the systematic instructional activities of the non-profit educational institution; (2) the performance or display is directly related

---

owner of the game is not also the copyright owner of the other work. *See* 17 U.S.C. § 109(e) (Supp. V 1993).

[296] *See* discussion of rental rights with regard to phonorecords and copies of computer programs *supra* notes 287-89 and accompanying text.

[297] *See* 17 U.S.C. § 110(1) (1988).

and of material assistance to the teaching content of the transmission; and (3) the transmission is made primarily for reception in classrooms or similar places or by persons to whom the transmission is directed because of their disabilities.[298]

Like the library exemptions, the educational use exemptions are provided in addition to the fair use and other general exemptions, which are also available to educational institutions.

e. OTHER LIMITATIONS

REPRODUCTION OF COMPUTER PROGRAMS

The rights of an owner of a copyright in a computer program are limited such that the owner of a particular copy of a computer program may make a copy or adaptation of the program as an "essential step" in using the computer program in a computer or for archival purposes.[299] This

---

[298] *See* 17 U.S.C. § 110(2) (1988).

[299] Section 117 of the Copyright Act provides:

> Notwithstanding the provisions of section 106, it is not an infringement for the owner of a copy of a computer program to make or authorize the making of another copy or adaptation of that computer program provided:
>
> (1) that such a new copy or adaptation is created as an essential step in the utilization of the computer program in conjunction with a machine and that it is used in no other manner, or
>
> (2) that such new copy or adaptation is for archival purposes only and that all archival copies are destroyed in the event that continued possession of the computer program should cease to be rightful.

17 U.S.C. § 117 (1988 & Supp. V 1993). Any identical copies made in accordance with Section 117 "may be leased, sold, or otherwise transferred, along with the copy from which such copies were prepared, only as part of the lease, sale, or other transfer of all rights in the program." Adaptations made may be transferred only with the authorization of the owner of the copyright in the original program. *Id.*

limitation applies only with respect to "owners" of copies of programs, not licensees, borrowers or mere possessors.

CERTAIN PERFORMANCES AND DISPLAYS

Certain performances and displays are exempt from infringement liability under Section 110 of the Copyright Act, including:

- the performance or display of certain works in the course of religious services;[300]
- the performance of certain works by governmental or non-profit agricultural or horticultural organizations;[301]
- the performance of certain musical works in retail outlets for the sole purpose of promoting retail sales;[302]
- the transmission of performances of certain works to disabled persons;[303] and
- the performance of certain works at non-profit veterans' or fraternal organizations for charitable purposes.[304]

The "communication of a transmission embodying a performance or display of a work by the public reception of the transmission on a single receiving apparatus of a kind commonly used in private homes" is also exempted if there is no direct charge to see or hear the transmission and the

---

300 *See* 17 U.S.C. § 110(3) (1988).

301 *See* 17 U.S.C. § 110(6) (1988).

302 *See* 17 U.S.C. § 110(7) (1988).

303 *See* 17 U.S.C. § 110(8), (9) (1988).

304 *See* 17 U.S.C. § 110(10) (1988).

transmission is not further transmitted to the public.[305] This exemption allows proprietors to play radios or televisions (*i.e.*, to perform or display copyrighted works in those radio or television transmissions) in public establishments such as restaurants, beauty shops and bars.[306] The applicability of this exemption is extremely fact-specific and what qualifies as a type of receiving apparatus "commonly used in private homes" will certainly change as home equipment merges (into, for example, radio/television/computer units) and becomes more sophisticated.

EPHEMERAL RECORDINGS

Section 112 provides that it is not an infringement of copyright for a "transmitting organization" that has the right to transmit to the public a performance or display of a work "to make no more than one copy or phonorecord of a particular transmission program embodying the performance or display" under certain conditions.[307]

---

[305] *See* 17 U.S.C. § 110(5) (1988).

[306] *See, e.g.*, the decision in *Twentieth Century Music Corp. v. Aiken*, 422 U.S. 151 (1975), which was essentially codified in Section 110(5) (owner of a small food establishment exempt from infringement liability for the performance of copyrighted works via a radio and four small ceiling speakers). *See also Sailor Music v. The Gap Stores, Inc.*, 516 F. Supp. 923 (S.D.N.Y.), *aff'd*, 668 F.2d 84 (2d Cir. 1981), *cert. denied*, 456 U.S. 945 (1982); *Rodgers v. Eighty Four Lumber Co.*, 617 F. Supp. 1021 (W.D. Pa. 1985); *Springsteen v. Plaza Roller Dome, Inc.*, 602 F. Supp. 1113 (M.D.N.C. 1985).

[307] *See* 17 U.S.C. § 112(a) (1988). This limitation of the copyright owner's reproduction right is applicable only if:

> (1) the copy or phonorecord is retained and used solely by the transmitting organization that made it, and no further copies or phonorecords are reproduced from it; and
>
> (2) the copy or phonorecord is used solely for the transmitting organization's own transmissions within its local service area, or for purposes of archival preservation or security; and
>
> (3) unless preserved exclusively for archival purposes, the copy or phonorecord is destroyed within six months from the date the transmission program was first transmitted to the public.

COMPULSORY LICENSES

Sections 111 and 119 are compulsory licensing provisions that allow cable systems and satellite operators to retransmit copyrighted programming without infringement liability if they pay a statutory licensing fee (which is then distributed among the copyright owners of the programming retransmitted).[308] A compulsory license under Section 111 is only available to a "cable system," which is defined as "a facility . . . that in whole or in part receives signals transmitted or programs broadcast by one or more television broadcast stations . . . ." A compulsory license under Section 111 generally would not be available with respect to NII transmissions because case law and regulations make clear that the term "cable system" does not encompass facilities such as those used for computer network transmissions.[309] Similarly, the compulsory license under Section 119 would not be available unless the transmitting entity qualified as a "satellite carrier" and met the other statutory criteria.[310]

Id.

[308] *See* 17 U.S.C. §§ 111, 119 (1988 & Supp. V 1993). These provisions are referred to as "compulsory licenses" because under such provisions, copyright owners are compelled to grant the licenses. No license agreements are signed and the terms of such licenses are set forth in the statute; the copyright owner cannot object to the use of the work and must be satisfied with the license fees collected under the statute, which are distributed among all of the affected copyright owners by arbitrators impaneled by the Librarian of Congress.

[309] The Copyright Office issued a regulation in 1992 stating that a cable system is a facility that both receives and transmits signals from within the same state. *See* 37 C.F.R. § 201.17(k) (1994). This ruling makes clear that Section 111 should not be applicable to any entities other than community-based cable systems. Moreover, in *Satellite Broadcast Networks, Inc. v. Oman*, 17 F.3d 344 (11th Cir.), *cert. denied*, 115 S. Ct. 88 (1994), the 11th Circuit upheld the regulation, finding it valid, enforceable and to be used by courts when determining whether a facility qualifies as a cable system. Since facilities used to transmit works through the NII will generally be inherently capable of receiving and transmitting outside any particular state, these facilities will not qualify for the cable compulsory license.

[310] A "satellite carrier" is defined as "an entity that uses facilities of a satellite

Compulsory licenses are also available for the public performance of nondramatic musical works by means of jukeboxes,[311] for the use of certain works in connection with noncommercial broadcasting,[312] and for the reproduction and distribution of nondramatic musical works in the course of making and distributing phonorecords of such works.[313]

8. COPYRIGHT INFRINGEMENT

a. GENERAL

Anyone who, without the authorization of the copyright owner, exercises any of the exclusive rights of a copyright owner, as granted and limited by the Copyright Act, is an infringer of copyright.[314] Thus, any activity that falls within the scope of the exclusive rights of the copyright owner is an infringement and the infringer is liable, unless it is authorized by the copyright owner or is excused by a defense (such as fair use) or an exemption.[315] For purposes

---

service licensed by the Federal Communications Commission to establish and operate a channel of communications for point-to-multipoint distribution of television station signals . . . ." *See* 17 U.S.C. § 119(d)(6). Unless the NII transmission occurs through a satellite service licensed by the FCC for the statutorily prescribed purposes, the compulsory license provisions would not be applicable.

311 *See* 17 U.S.C. § 116 (Supp. V 1993). This compulsory license may only be invoked if private negotiations fail to produce a consensual license.

312 *See* 17 U.S.C. § 118 (1988 & Supp. V 1993).

313 *See* 17 U.S.C. § 115 (1988).

314 *See* 17 U.S.C. § 501(a) (Supp. V 1993). Anyone who "trespasses into [the copyright owner's] exclusive domain by using or authorizing the use of the copyrighted work in one of the five ways set forth in the statute" is an infringer of the copyright. *Sony*, *supra* note 22, at 433.

315 *See* discussion of the scope of the exclusive rights *supra* at pp. 63-72. For instance, activities such as loading a work into a computer, scanning a printed work into a digital file, uploading or downloading a work between a user's computer and a BBS or other server, and transmitting a work from one computer to another may be infringements (in those cases, of the reproduction right). *See, e.g.*, *MAI Systems Corp. v. Peak Computer, Inc.*, 991 F.2d 511 (9th Cir. 1993) (the turning on of the computer, thereby causing the operating system to

of this discussion of infringement, the lack of such authorization, defense or exemption is generally presumed.

Copyright infringement is determined without regard to the intent or the state of mind of the infringer; "innocent" infringement is infringement nonetheless.[316] Moreover, although the exclusive rights refer to such rights with respect to "copies" (plural) of the work,[317] there is no question that under the Act the making of even a single unauthorized copy may constitute an infringement.[318]

Courts generally use the term "copying" as shorthand for a violation of any of the exclusive rights of the copyright owner (not just the reproduction right). Courts usually require a copyright owner to prove ownership of the copyrighted work and "copying" by the defendant to prevail in an infringement action.

Since there is seldom direct evidence of copying (witnesses who actually saw the defendant copy the work, for instance), a copyright owner may prove copying through

---

be copied into RAM, constituted an infringing reproduction of the copyrighted software); *Advanced Computer Services v. MAI Systems Corp.*, 845 F. Supp. 356 (E.D. Va. 1994) (loading software into computer's random access memory constituted infringing reproduction); *see also* 2 NIMMER ON COPYRIGHT § 8.08 at 8-103 (1993) ("input of a work into a computer results in the making of a copy, and hence . . . such unauthorized input infringes the copyright owner's reproduction right").

316 The innocence or willfulness of the infringing activity may be relevant with regard to the award of statutory damages. *See* 17 U.S.C. § 504(c) (1988); *see also* discussion of remedies *infra* pp. 130-33.

317 *See* 17 U.S.C. § 106 (1988 & Supp. V 1993).

318 *See* HOUSE REPORT at 61, *reprinted in* 1976 U.S.C.C.A.N. 5674 ("references to 'copies or phonorecords' are intended [in Section 106(1)-(3)] and throughout the bill to include the singular"; "the right 'to reproduce the copyright work in copies or phonorecords' means the right to produce *a* material object in which the work is duplicated, transcribed, imitated, or simulated . . . "). Further evidence of the intent of Congress to make even a single act of unauthorized reproduction an infringement is found in specific exemptions created for certain single-copy uses. *See, e.g.*, 17 U.S.C. §§ 108(a), 108(f)(2), 112(a) (1988); *see also Texaco*, *supra* note 251, at 17.

circumstantial evidence establishing that the defendant had access to the original work and that the two works are substantially similar. Other indications of copying, such as the existence of common errors, have also been accepted as evidence of infringement.[319]

The copying of the copyrighted work must be copying of protected expression and not just ideas;[320] likewise, the similarity between the two works must be similarity of protected elements (the expression), not unprotected elements (the facts, ideas, etc.). The portion taken must also be more than *de minimis*.

The similarity between the two works need not be literal (*i.e.*, phrases, sentences or paragraphs need not be copied verbatim); substantial similarity may be found even if none of the words or brush strokes or musical notes are identical.[321] Various tests have been developed to determine

---

[319] *See, e.g., Rockford Map Publishers, Inc. v. Directory Serv. Co.*, 224 U.S.P.Q. 851 (C.D. Ill. 1984), *aff'd*, 768 F.2d 145 (7th Cir. 1985), *cert. denied*, 474 U.S. 1061 (1986); *Sub-Contractors Register, Inc. v. McGovern's Contractors & Builders Manual, Inc.*, 69 F. Supp. 507, 509 (S.D.N.Y. 1946). It is common for publishers of directories and other compilations to deliberately insert mistakes into the work (such as periodically adding a fictitious name, address and phone number in a telephone directory) to detect and help establish copying. *See* 2 H. ABRAMS, THE LAW OF COPYRIGHT § 14.02[B][3][c], at 14-19 to 20 (1993).

[320] This should be implied in the requirement that there be copying of the copyrighted work. Ideas and facts, of course, are not copyrightable. In the case of compilations, such as databases, if enough facts are copied, the copyrighted expression (the selection, arrangement or coordination of the facts) may be copied and infringement may be found. *See CONTU Final Report* at 42 ("The use of one item retrieved from such a work -- be it an address, a chemical formula, or a citation to an article -- would not . . . conceivably constitute infringement of copyright. The retrieval and reduplication of any substantial portion of a data base, whether or not the individual data are in the public domain, would likely constitute a duplication of the copyrighted element of a data base and would be an infringement.").

[321] *See Donald v. Zack Meyer's T.V. Sales & Service*, 426 F.2d 1027, 1030 (5th Cir. 1970) ("paraphrasing is equivalent to outright copying"), *cert. denied*, 400 U.S. 992 (1971); *Davis v. E.I. DuPont de Nemours & Co.*, 240 F. Supp. 612, 621 (S.D.N.Y. 1965) ("paraphrasing is tantamount to copying in copyright law"); *see generally* 3 NIMMER ON COPYRIGHT § 13.03[A] at 13-28 to 13-58 (1993).

whether there has been sufficient non-literal copying to constitute substantial similarity between a copyrighted work and an allegedly infringing work.[322] Judge Learned Hand articulated the well-known "abstractions test," where the expression and the idea are, in essence, treated as ends of a continuum, with infringement found if the allegedly infringing work crosses the line delineating the two.[323] Such a line, as Judge Hand recognized, is not fixed in stone; indeed, as he put it, its location must "inevitably be *ad hoc* . . . ."[324] The "pattern" test has also been suggested, where infringement is found if the "pattern" of the work is taken (in a play, for instance, the "sequence of events, and the development of the interplay of characters").[325]

The "subtractive" test -- which dissects the copyrighted work, disregards the noncopyrightable elements, and compares only the copyrightable elements of the copyrighted work to the allegedly infringing work -- has been the traditional method for determining substantial

---

Nimmer identifies two bases upon which courts impose liability for less than 100 percent verbatim copying: (1) "fragmented literal similarity" (where words, lines or paragraphs are copied virtually word-for-word, although not necessarily verbatim) and (2) "comprehensive nonliteral similarity" (where the "fundamental essence or structure" of a work is copied); *see also* P. GOLDSTEIN, COPYRIGHT § 7.2.1 at 13-17 (1989). Goldstein identifies three types of similarity: (1) where the infringing work "tracks" the original work "in every detail," (2) "striking similarity" (where a brief portion of both works is "so idiosyncratic in its treatment as to preclude coincidence") and (3) similarities that "lie beneath the surface" of the works ("[i]ncident and characterization in literature, composition and form in art, and rhythm, harmony and musical phrases in musical composition"). *Id.* at 13 (citations omitted).

322 For analyses of the various tests that have been used, *see* 3 NIMMER ON COPYRIGHT § 13.03[A] at 13-28 to -58 (1993); M. LEAFFER, UNDERSTANDING COPYRIGHT LAW §§ 9.5 - 9.7 at 268-76 (1989).

323 *See Nichols v. Universal Pictures, Corp.*, 45 F.2d 119, 121 (2d Cir. 1930).

324 *See Peter Pan Fabrics Inc. v. Martin Weiner Corp.*, 274 F.2d 487 (2d Cir. 1960).

325 *See* Z. Chaffee, *Reflections on the Law of Copyright: I*, 45 COLUMBIA L. REV. 503, 513 (1945).

similarity.[326] Following the 1970 Ninth Circuit decision in *Roth Greeting Cards v. United Card Co.*,[327] the "totality" test became popular for determining substantial similarity. The totality test compares works using a "total concept and feel" standard to determine whether they are substantially similar. Although chiefly used by the Ninth Circuit in the 1970s and 1980s,[328] the test was used by other circuits as well.[329]

The Ninth Circuit further defined an "extrinsic/intrinsic" test in proof of substantial similarity in *Sid & Marty Krofft Television Productions, Inc. v. McDonald's Corp.*[330] The intrinsic portion of the test measures whether an observer "would find the total concept and feel of the works" to be substantially similar.[331] The extrinsic portion of the test, meanwhile, is an objective analysis of similarity based on "specific criteria that can be listed and analyzed."[332] Thus, this test requires substantial similarity

---

326 *See Universal Athletic Sales Co. v. Salkeld*, 511 F.2d 904, 908-09 (3d Cir.), *cert. denied*, 423 U.S. 863 (1975) (subtracting all but the "stick figures" from chart as non-protectible subject matter); *Alexander v. Haley*, 460 F. Supp 40, 46 (S.D.N.Y. 1978) (finding "alleged infringements display no similarity at all in terms of expression or language, but show at most some similarity of theme or setting. These items, the skeleton of creative work rather than the flesh, are not protected by the copyright laws.").

327 *See* 429 F.2d 1106 (9th Cir. 1970).

328 *See, e.g., Sid & Marty Krofft Television Prods., Inc. v. McDonald's Corp.*, 562 F.2d 1157 (9th Cir. 1977); *McCulloch v. Albert E. Price, Inc.*, 823 F.2d 316 (9th Cir. 1987).

329 *See, e.g., Reyher v. Children's Television Workshop*, 533 F.2d 87 (2d Cir. 1976); *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607 (7th Cir.), *cert. denied*, 459 U.S. 880 (1982); *Atari Games Corp. v. Oman*, 888 F.2d 878 (D.C. Cir. 1989); *Whelan Assocs., Inc. v. Jaslow Dental Lab., Inc.*, 797 F.2d 1222 (3d Cir. 1986), *cert. denied*, 479 U.S. 877 (1987).

330 562 F.2d 1157 (9th Cir. 1977).

331 *See Pasillas v. McDonald's Corp.*, 927 F.2d 440, 442 (9th Cir. 1991).

332 *See Brown Bag Software v. Symantec Corp.*, 960 F.2d 1465, 1475 (9th Cir. 1992).

"not only of the general ideas but of the expressions of those ideas as well."[333]

More recently, however, both the Ninth and Second Circuits have moved away from the totality test, particularly with respect to computer applications. In *Data East USA, Inc. v. Epyx, Inc.*,[334] the Ninth Circuit rediscovered "analytic dissection of similarities" in the substantial similarity determination of video games.[335] Similarly, the Second Circuit, in *Computer Associates International, Inc. v. Altai, Inc.*,[336] fashioned an "abstraction-filtration-comparison test" for a computer program that combined Judge Learned Hand's "abstraction" test (to separate ideas from expression) and "filtration" reminiscent of traditional "subtraction" analysis in distinguishing protectible from non-protectible material.[337]

In addition to the evolution of substantial similarity tests, there is disagreement as to the appropriate "audience" for determining substantial similarity. The "ordinary observer test" -- alluded to in *Arnstein v. Porter*[338] and followed in a number of Second Circuit decisions[339] -- considers the question of substantial similarity from the

---

333 *Krofft, supra* note 330, at 1164.

334 862 F.2d 204 (9th Cir. 1988).

335 *See also Apple Computer, Inc. v. Microsoft Corp.*, 35 F.3d 1435, 1445 (9th Cir. 1994) (approving of district court's use of analytical dissection and agreeing with other courts' use of the "same analysis although articulated differently").

336 982 F.2d 693 (2d Cir. 1992). *See Autoskill Inc. v. National Educational Support Systems, Inc.*, 994 F.2d 1476, 1490-91 (10th Cir. 1993).

337 Other circuits have applied this test. *See Engineering Dynamics, Inc. v. Structural Software, Inc.*, 26 F.3d 1335, 1343 (5th Cir. 1994); *Gates Rubber Co. v. Bando Chemical Indus., Ltd.*, 9 F.3d 823, 834 (10th Cir. 1993).

338 154 F.2d 464 (2d Cir. 1946).

339 *See, e.g., Peter Pan Fabrics, Inc. v. Martin Weiner Corp.*, 274 F.2d 487 (2d Cir. 1960); *Ideal Toy Corp. v. Fab-Lu Ltd.*, 360 F.2d 1021 (2d Cir. 1966); *Eden Toys, Inc. v. Marshall Field & Co.*, 675 F.2d 498 (2d Cir. 1982).

viewpoint of the "average lay observer."[340] The Fourth Circuit, however, set forth a modified test in *Dawson v. Hinshaw Music Inc.*,[341] requiring the ordinary observer to be the "intended" audience for the particular work. Relying on decisions by both the Ninth and Seventh Circuits,[342] the court in *Dawson* stated:

> [i]f the lay public fairly represents the intended audience, the court should apply the lay observer formulation of the ordinary observer test. However, if the intended audience is more narrow in that it possesses specialized expertise, . . . the court's inquiry should focus on whether a member of the intended audience would find the two works to be substantially similar.[343]

The challenge of this test, especially in more advanced technologies, is determining when, if ever, a work is not directed to an audience possessing specialized expertise, and at what point a work once intended for a specialized audience becomes accepted by the general public.

The ability to manipulate works in digital form raises an issue with respect to infringement of the reproduction and derivative works rights. A copyrighted photograph, for instance, can be manipulated in the user's computer in such a way that the resulting work is not substantially similar to

---

340 *Ideal Toy Corp.* at 1023 n.2.

341 905 F.2d 731 (4th Cir. 1990).

342 *See Aliotti v. R. Dakin & Co.*, 831 F.2d 898, 902 (9th Cir. 1987) (holding that perceptions of children must be considered in substantial similarity analysis because they are intended market for product); *Atari, Inc. v. North American Philips Consumer Electronics Corp.*, 672 F.2d 607, 619 (7th Cir.), *cert. denied*, 459 U.S. 880 (1982) (holding that "[v]ideo games, unlike an artist's painting, . . . appeal to an audience that is fairly undiscriminating insofar as their concern about more subtle differences in artistic expression").

343 *Dawson*, *supra* note 341, at 736.

the copyrighted work (in fact, it may bear little or no resemblance to the copyrighted work upon which it was based). The initial input of the copyrighted work into the user's computer may be an infringement of the copyright owner's reproduction right, but the infringing (or noninfringing) nature of the resulting work is less clear. Although courts traditionally rely on a "substantial similarity" test to determine infringement liability -- including with regard to the derivative works right -- neither the meaning of "derivative work" nor the statutory standard for infringement appears to require an infringing derivative work to be substantially similar.[344]

b. INFRINGING IMPORTATION

The exclusive right to distribute copies or phonorecords includes the right to limit the importation of copies or phonorecords of a work acquired outside the United States into the U.S. without the authority of the copyright owner.[345] Such unauthorized importation, whether it be of pirated items (*i.e.*, "copies or phonorecords made without any authorization of the copyright owner")[346] or "gray market" products (*i.e.*, those copies or

---

[344] An infringer is anyone who violates "any of the exclusive rights" of the copyright owner. 17 U.S.C. § 501(a) (Supp. V 1993). One of the exclusive rights is "to prepare derivative works based upon the copyrighted work." 17 U.S.C. § 106(2) (1988). A "derivative work" is a work "based upon one or more preexisting works, such as a . . . condensation, or any other form in which a work may be recast, transformed, or adapted." 17 U.S.C. § 101 (1988) (definition of "derivative work"). The Ninth Circuit has suggested that "a work is not derivative unless it has been substantially *copied* from the prior work." *See Litchfield v. Spielberg*, 736 F.2d 1352, 1357 (9th Cir. 1984) (emphasis added). It is unclear, however, whether the court is suggesting that a derivative work must be substantially *similar* to the prior work or that it simply must incorporate in some form a portion of the prior work, as noted in the legislative history. *See* HOUSE REPORT at 62, *reprinted in* 1976 U.S.C.C.A.N. 5675. The court noted that there is "little available authority" on infringement of the derivative works right. *See Litchfield* at 1357.

[345] 17 U.S.C. § 602(a) (1988).

[346] HOUSE REPORT at 169-70, *reprinted in* 1976 U.S.C.C.A.N. 5785.

phonorecords legally produced overseas for foreign distribution, but not authorized for the U.S. market),[347] is an infringement of the distribution right.[348]

There are three exceptions to the importation right, which include a "suitcase" exception that exempts importation for the private use of the importer of one copy of a work at a time or of articles in the personal baggage of travelers entering the United States.[349]

The applicability of the importation provisions to the transmission of works into the United States via the NII (or GII) may be debated. Nevertheless, the importation right is an outgrowth of the distribution right, both of which refer

---

[347] *Id.* (Section 602 covers "unauthorized importation of copies or phonorecords that were lawfully made").

[348] *See T.B. Harms Co. v. Jem Records, Inc.*, 655 F. Supp. 1575 (D.N.J. 1987); *Parfums Givenchy, Inc. v. C&C Beauty Sales, Inc.*, 832 F. Supp. 1378 (C.D. Cal. 1993). Courts are divided as to whether the first sale doctrine limits the ability of copyright owners to enforce the importation rights (as it does with respect to the domestic distribution right). *Compare BMG Music v. Perez*, 952 F.2d 318, 319 (9th Cir. 1991) (first sale doctrine does not circumscribe importation rights under Section 602) *with Sebastian Int'l, Inc. v. Consumer Contacts (PTY) Ltd.*, 847 F.2d 1093, 1097 (3d Cir. 1988) (*contra*).

[349] *See* 17 U.S.C. § 602(a) (1988) (subsection does not apply to "(1) importation of copies or phonorecords under the authority or for the use of the Government of the United States or of any State or political subdivision of a State, but not including copies or phonorecords for use in schools, or copies of any audiovisual work imported for purposes other than archival use; (2) importation, for the private use of the importer and not for distribution, by any person with respect to no more than one copy or phonorecord of any one work at any one time, or by any person arriving from outside the United States with respect to copies or phonorecords forming part of such person's personal baggage; or (3) importation by or for an organization operated for scholarly, educational, or religious purposes and not for private gain, with respect to no more than one copy of an audiovisual work solely for its archival purposes, and no more than five copies or phonorecords of any other work for its library lending or archival purposes, unless the importation of such copies or phonorecords is part of an activity consisting of systematic reproduction or distribution, engaged in by such organization in violation of the provisions of section 108(g)(2)"); HOUSE REPORT at 170, *reprinted in* 1976 U.S.C.C.A.N. 5786.

to "copies or phonorecords."[350] A data stream can contain a copyrighted work in the form of electronic impulses, but those impulses do not fall within the definition of "copies" or "phonorecords." Therefore, it may be argued that the transmission of a reproduction of a copyrighted work via international communication links fails to constitute an "importation" under the current law, just as it is less than clear that a domestic transmission of a reproduction of a work constitutes a distribution of a copy under a literal reading of the Copyright Act.[351]

c. CONTRIBUTORY AND VICARIOUS LIABILITY

Direct participation in infringing activity is not a prerequisite for infringement liability, as the Copyright Act grants to copyright owners not only the right to exercise the exclusive rights, but also the right "to authorize" the exercise of those rights. The inclusion of the right "to authorize" was "intended to avoid any questions as to the liability of contributory infringers" -- those who do not directly exercise the copyright owner's rights, but "authorize" others to do so.[352] Other than the reference to a copyright owner's right "to authorize" exercise of the exclusive rights, however, the Copyright Act does not mention or define "contributory infringement" or "vicarious liability," the standards for which have developed through case law.[353]

---

350 *See* discussion of transmissions and the distribution right *supra* pp. 67-69.

351 *See* discussion *infra* pp. 213-21.

352 *See* HOUSE REPORT at 61, *reprinted in* 1976 U.S.C.C.A.N. 5674. There must be a direct infringement upon which contributory infringement or vicarious liability is based.

353 The concepts of contributory and vicarious liability are well-established in tort law. Contributory infringement of intellectual property rights was first codified in patent law. *See* 35 U.S.C. § 271(c) (1988).

If someone has the "right and ability" to supervise the infringing action of another, and that right and ability "coalesce with an obvious and direct financial interest in the exploitation of copyrighted materials -- even in the absence of actual knowledge" that the infringement is taking place -- the "supervisor" may be held vicariously liable for the infringement.[354] Vicarious liability is based on a connection to the direct infringer (not necessarily to the infringing activity).

The best known copyright cases involving vicarious liability are the "dance hall" cases, where vicarious liability was found when dance hall owners allowed the unauthorized public performance of musical works by the bands they hired, even when the owners had no knowledge of the infringements and had even expressly warned the bands not to perform copyrighted works without a license from the copyright owners.[355]

"Contributory infringement" may be found when "one who, with knowledge of the infringing activity, induces, causes or materially contributes to the infringing conduct of

---

[354] *Shapiro, Bernstein & Co. v. H.L. Green Co.*, 316 F.2d 304, 307 (2d Cir. 1963) (holding that company that leased floor space to phonograph record department was liable for record department's sales of "bootleg" records despite absence of actual knowledge of infringement, because of company's beneficial relationship to the sales).

[355] *See, e.g., Dreamland Ball Room, Inc. v. Shapiro, Bernstein & Co.*, 36 F.2d 354 (7th Cir. 1929); *Famous Music Corp. v. Bay State Harness Horse Racing & Breeding Ass'n, Inc.*, 554 F.2d 1213 (1st Cir. 1977); *KECA Music, Inc. v. Dingus McGee's Co.*, 432 F. Supp. 72 (W.D. Mo. 1977). Indeed, the "cases are legion which hold the dance hall proprietor liable for the infringement of copyright resulting from the performance of a musical composition by a band or orchestra whose activities provide the proprietor with a source of customers and enhanced income. He is liable whether the bandleader is considered, as a technical matter, an employee or an independent contractor, and whether or not the proprietor has knowledge of the compositions to be played or any control over their selection." *Shapiro, Bernstein & Co. v. H.L. Green Co.*, 316 F.2d 304, 307 (2d Cir. 1963) (citing some 10 cases).

another."[356] Contributory infringement is based on a connection to the infringing activity (not necessarily to the direct infringer). A contributory infringer may be liable based on the provision of services or equipment related to the direct infringement.[357]

SERVICES

Liability may be based on the provision of services related to the infringement. Courts have found contributory infringement liability, for instance, when a defendant chose the infringing material to be used in the direct infringer's work,[358] and vicarious liability when a defendant was responsible for the day-to-day activities where the infringement took place.[359]

EQUIPMENT

Infringement liability may also be based on the provision of equipment or other instrumentalities or goods used in or related to the infringement.[360] However, the

---

[356] *Gershwin Publishing Corp. v. Columbia Artists Management, Inc.*, 443 F.2d 1159, 1162 (2d Cir. 1971) (holding management firm's authorization of clients' performances of copyrighted compositions to be contributory infringement).

[357] A library is exempted from liability for the unsupervised use of reproducing equipment located on its premises provided that the equipment displays a copyright law notice. 17 U.S.C. § 108(f)(1) (1988). This exemption does not apply to the user of such equipment, and no other provider of equipment enjoys any statutory immunity. *See* 17 U.S.C. § 108(f)(2) (1988).

[358] *See Universal Pictures Co. v. Harold Lloyd Corp.*, 162 F.2d 354, 366 (9th Cir. 1947) (rejecting defendant's argument that as an employee, he was not responsible for his employer's decision to use infringing material, in light of defendant's personal selection and appropriation of the protected material).

[359] *See Boz Scaggs Music v. KND Corp.*, 491 F. Supp. 908, 913 (D. Conn. 1980) (finding defendant liable based on own admission of responsibility and control over radio performances of protected works).

[360] *See, e.g., Cable/Home Communication Corp. v. Network Prods., Inc.*, 902 F.2d 829, 845-47 (11th Cir. 1990).

Supreme Court in *Sony Corp. v. Universal City Studios, Inc.*,[361] a 5 to 4 decision, held that the manufacturer of videocassette recorders was not a contributory infringer for providing the equipment used in the unauthorized reproduction of copyrighted works. Borrowing a patent law principle, the Court reasoned that manufacturers of staple articles of commerce that are capable of substantial noninfringing uses should not be held liable as contributory infringers.[362] The Court held:

> [T]he sale of copying equipment, like the sale of other articles of commerce, does not constitute contributory infringement if the product is widely used for legitimate, unobjectionable purposes. Indeed, it need merely be capable of substantial noninfringing uses.[363]

The Court determined that the key question was whether the videocassette recorder was "capable of

---

361 464 U.S. 417 (1984).

362 *Id.* at 440.

363 *Id.* at 442. The Court cited two principles of patent law, but used only one as the appropriate analogy for copyright law:

> The Copyright Act does not expressly render anyone liable for infringement committed by another. In contrast, the Patent Act expressly brands anyone who "actively induces infringement of a patent" as an infringer, 35 U.S.C. § 271(b), and further imposes liability on certain individuals labeled "contributory" infringers, § 271(c).

Id. at 434-35. Section 271(b) of the Patent Act provides, "Whoever actively induces infringement of a patent shall be liable as an infringer." 35 U.S.C. § 271(b) (1988). Section 271(c) provides, "Whoever sells a component of a patented machine, manufacture, combination or composition, or a material or apparatus for use in practicing a patented process, constituting a material part of the invention, knowing the same to be especially made or especially adapted for use in an infringement of such patent, and not a staple article or commodity of commerce suitable for substantial noninfringing use, shall be liable as a contributory infringer." 35 U.S.C. § 271(c) (1988).

commercially significant noninfringing uses."[364] The Court also held that in an action for contributory infringement against a manufacturer of copying devices, "the copyright holder may not prevail unless the relief that he seeks affects only his programs, or unless he speaks for virtually all copyright holders with an interest in the outcome."[365]

Other cases against producers or providers of the instrumentalities of infringement since *Sony* generally have not been successful.[366] However, the court in the recent

---

364 *Sony*, *supra* note 361, at 442. "In order to resolve that question, we need not explore *all* the different potential uses of the machine and determine whether or not they would constitute infringement. Rather, we need only consider whether on the basis of the facts as found by the District Court a significant number of them would be noninfringing." *Id.* The Court declined to "give precise content" to the issue of how much use is needed to rise to the level of "commercially significant." *See id.*

The four dissenting Justices did not agree that the patent "staple article of commerce" doctrine of contributory infringement was applicable to copyright law. *See Sony*, *supra* note 361, at 490-91 n.41 (Blackmun, J., dissenting) ("[t]he doctrine of contributory patent infringement has been the subject of attention by the courts and by Congress . . . and has been codified since 1952, . . . but was never mentioned during the copyright law revision process as having any relevance to contributory *copyright* infringement"); *see also id.* at 491 (disagreeing that "this technical judge-made doctrine of patent law, based in part on considerations irrelevant to the field of copyright . . . should be imported wholesale into copyright law. Despite their common constitutional source, . . . patent and copyright protections have not developed in a parallel fashion, and this Court in copyright cases in the past has borrowed patent concepts only sparingly.") Recognizing the "concerns underlying the 'staple article of commerce' doctrine," the dissent concluded that "if a *significant* portion of the product's use is *noninfringing*, the manufacturers and sellers cannot be held contributorily liable for the product's infringing uses." *See id.* at 491 (Blackmun, J., dissenting).

365 *Id.* at 446.

366 *See, e.g.*, *Vault Corp. v. Quaid Software Ltd.*, 847 F.2d 255 (5th Cir. 1988) (seller of computer programs that defeat anti-copying protection is not liable as contributory infringer because programs can be used to enable user to make legal archival copies of copyrighted computer programs under Section 117, which the court found to be a substantial noninfringing use). *But see RCA Records v. All-Fast Systems, Inc.*, 594 F. Supp. 335 (S.D.N.Y. 1984) (operator is liable for contributory infringement based on its provision of sound recording facilities where public could make unauthorized phonorecords).

Sega case[367] issued a preliminary injunction against a BBS operator who sold special copiers, the "only substantial use" of which was to copy Sega's copyrighted video games.[368] The court found that Sega established a *prima facie* case of contributory infringement by the BBS operator based on the operator's "advertising, sale and distribution" of the video game copiers.[369]

d. ON-LINE SERVICE PROVIDER LIABILITY

There is a view that on-line service providers, such as bulletin board operators, should be exempt from liability or given a higher standard for liability, such as imposing liability only in those cases where infringement was willful and repeated or where it was proven that the service provider had both "actual knowledge" of the infringing activity and the "ability and authority" to terminate such activity. The latter proposed standard would combine the contributory infringement standard with the requirements for vicarious liability and apply it to all infringements (including direct infringements) of the service provider. Altering the standards of liability for infringement would be a significant departure from current copyright principles and law and would result in a substantial derogation of the rights of copyright owners. It is a difficult issue, with colorable arguments on each side.[370]

---

367 *Sega Enterprises Ltd. v. MAPHIA*, 857 F. Supp. 679 (N.D. Cal. 1994).

368 *See id.* at 685.

369 *See id.* at 687. The court found that there was "no need to make archival copies of [Sega's] ROM game cartridges" because the "ROM cartridge format is not susceptible to breakdown" and Sega would replace defective cartridges. *See id.* at 685. The court also found that it was unlikely that customers would buy the copiers, at a cost of $350, for the purpose of backing up Sega's video game programs, which sold for $30 to $70 each. *Id.* at 685.

370 For detailed analyses of arguments on both sides of this liability issue, *see* I. Trotter Hardy, *The Proper Legal Regime for "Cyberspace,"* 55 U. PITT. L. REV. 993 (1994).

Copyright law imposes different standards of liability for direct, contributory and vicarious liability. Direct infringers are held to a standard of strict liability. Liability for direct infringement is, therefore, generally determined without regard to the intent of the infringer.[371] However, the Copyright Act gives courts the discretion to consider the innocent intent of the infringer in determining the amount of damages to be awarded.[372] Related infringers -- those found to be contributory infringers or vicariously liable -- are not held to strict liability, but rather to a higher threshold for liability.[373]

Arguments made by service providers wishing exemption or a higher standard for liability include: that the volume of material on a service provider's system is too large to monitor or screen; that even if a service provider is

---

371 This differs from other bodies of law with which service providers, as well as broadcasters, newspaper publishers and others, come in contact. Defamation, for example, has a knowledge requirement for liability. This standard is the same whether in a conventional or NII environment. In *Auvil v. CBS "60 Minutes,"* 800 F. Supp. 928 (E.D. Wash. 1992), the court held that a network affiliate which exercised no editorial control over the network broadcast (although it had the power to do so) served only as a conduit and was not liable for republishing defamatory statements. The court borrowed reasoning from book seller cases -- "one who only delivers or transmits defamatory material published by a third person is subject to liability if, but only if, he knows or had reason to know of its defamatory character" -- finding "no logical basis for imposing a duty of censorship on the visual media which does not likewise attach to the print chain of distribution." The court also found that the injured parties were not impaired by limiting conduit liability to those situations where culpability is established; "[t]he generating source, which in a national broadcast will generally be the deepest of the deep pockets, may still be called upon to defend." A similar result was reached in *Cubby, Inc v. CompuServe Inc.*, 776 F. Supp. 135 (S.D.N.Y. 1991), where the court held that libelous material uploaded to a bulletin board system by a subscriber did not subject the BBS operator to damages for libel. The court determined that a BBS was a "distributor" (akin to a public library or bookstore) rather than a "republisher," and thus the operator was liable only if it "knew or had reason to know of the allegedly defamatory . . . statements" that had been uploaded.

372 *See* discussion of innocent infringement *infra* p. 125.

373 *See* discussion of contributory infringement and vicarious liability *supra* pp. 109-14.

willing and able to monitor the material on its system, it cannot always identify infringing material; that failure to shield on-line service providers will impair communication and availability of information; that exposure to liability for infringement will drive service providers out of business, causing the NII to fail; and that the law should impose liability only on those who assume responsibility for the activities their subscribers (and, presumably, they) engage in on their system.

It is estimated by some that trillions of bits representing millions of messages and files travel through networks each day. Of course, only a percentage of those appear on any given service provider's system. Nevertheless, it is still virtually impossible for operators of large systems to contemporaneously review every message transmitted or file uploaded. On-line service providers are not alone in this position. Millions of photographs are taken to photo finishers each day by individual consumers. It is virtually impossible for these service providers to view any of those works before they are reproduced from the undeveloped film. Yet, they operate under strict liability standards.[374] Likewise, book sellers, record stores, newsstands and computer software retailers cannot possibly read all the books, listen to all the records, review all the newspapers and magazines or analyze all the computer programs that pass through their establishments for possible infringements. Yet, they may be held strictly liable as distributors if the works or copies they deal in are infringing.

Further, while it may be argued that a bit is a bit and infringing bits are indistinguishable from authorized ones, and that discovery of infringing material may be made more difficult if the title or other identifying information is removed or altered, on-line service providers can certainly investigate and take appropriate action when notified of the

---

374 *See Olan Mills, Inc. v. Linn Photo Co.*, 23 F.3d 1345 (8th Cir. 1994).

existence of infringing material on their systems and thus limit their liability for damages to those for innocent infringement. Again, this problem has been a part of the cost of doing business for many other distributors of material that is provided to them by others.[375]

Clearly, on-line service providers play an integral role in the development of the NII and facilitate and promote the free exchange of ideas.[376] But that has not been grounds for removing or reducing liability for copyright infringement. One can perform these functions without infringing or facilitating the infringement of the copyrighted expression of others.

On-line service providers have a business relationship with their subscribers. They -- and, perhaps, only they -- are in the position to know the identity and activities of their subscribers and to stop unlawful activities.[377] And, although indemnification from their subscribers may not reimburse them to the full extent of their liability and other measures may add to their cost of doing business, they are still in a better position to prevent or stop infringement than the copyright owner. Between these two relatively innocent parties, the best policy is to hold the service provider liable.

The on-line services provide subscribers with the capability of uploading works because it attracts subscribers and increases usage -- for which they are paid. Service providers reap rewards for infringing activity. It is difficult

---

[375] *See* P. GOLDSTEIN, COPYRIGHT, § 1.15, at 45 (1989) ("The exercise of due diligence . . . can reduce, but never entirely exclude, the risk of a copyright infringement claim. Copyright law's rule of strict liability poses particularly hard problems for an intermediary, . . . which must accept on faith its author's representation that he originated the work.").

[376] The same can be said of other information providers and facilitators, such as book stores, photocopying services, photo finishers, broadcasters, etc.

[377] The subscriber may be unknown -- particularly in the case of anonymous messages -- to everyone but the service provider.

to argue that they should not bear the responsibilities. We are not aware that cost/benefit analyses have prompted service providers to discontinue such services. The risk of infringement liability is a legitimate cost of engaging in a business that causes harm to others, and that risk apparently has not outweighed the benefits for the more than 60,000 bulletin board operators currently in business.[378]

There has been tremendous growth in the on-line service industry over the past several years, and it shows no signs of reversing the trend under current standards of liability. Other entities have some of the same costs of doing business, have instituted practices and taken appropriate precautions to minimize their risk of liability, such as indemnification agreements and insurance.

The Supreme Court has stated:

> Intention to infringe is not essential under the Act. And knowledge of the particular selection to be played or received is immaterial. One who hires an orchestra for a public performance for profit is not relieved from a charge of infringement merely because he does not select the particular program to be played. Similarly, when he tunes in on a broadcasting station, for his own commercial purposes, he necessarily assumes the risk that in doing so he may infringe the performing rights of another.[379]

---

[378] Some estimates of the number of BBS operators are as high as 100,000.

[379] *See Buck v. Jewell-LaSalle Realty Co.*, 283 U.S. 191, 198-99 (1931) (citations omitted) (at the time, infringement of the public performance right required that the performance was "for profit"); *see also ABKCO Music, Inc. v. Harrisongs Music, Ltd.*, 722 F.2d 988, 999 (2d Cir. 1983) ("the problems of proof inherent in a rule that would permit innocent intent as a defense to copyright infringement could substantially undermine the protections Congress intended to afford copyright holders").

During the deliberations preceding enactment of the 1976 general revision of the Copyright Act, changes to the standards of liability were "considered and rejected."[380] For instance, Congress was asked to alter the standard for vicarious liability for business owners whose independent contractors directly infringed the public performance right in copyrighted works (such as owners of dance halls).[381]

> A well-established principle of copyright law is that a person who violates any of the exclusive rights of the copyright owner is an infringer, including persons who can be considered related or vicarious infringers . . . . The committee has decided that no justification exists for changing existing law, and causing a significant erosion of the public performance right.[382]

Congress also determined that the innocent infringer provision, which allows reduction of damages for innocent infringers "is sufficient to protect against unwarranted liability in cases of occasional or isolated innocent infringement, and it offers adequate insulation to users, such as broadcasters and newspaper publishers, who are particularly vulnerable to this type of infringement suit."[383] Congress believed that "by establishing a realistic floor for liability, the provision preserves its intended deterrent effect; and it would not allow an infringer to escape simply

---

380 *See, e.g.*, HOUSE REPORT at 159-60, *reprinted in* 1976 U.S.C.C.A.N. 5775-76. Within the cable compulsory licensing provisions, one narrow exemption from liability was granted with respect to secondary transmissions by independent carriers that provided transmission capacity for the distribution of superstation signals to local cable operators. *See* 17 U.S.C. § 111(a)(3) (1988). This exemption is only available if the primary transmission is made for reception by the public at large. If the primary transmission is limited to a particular segment of the public, such as subscribers to a service, the exemption does not apply and the standards for copyright liability are fully applicable.

381 *See* cases cited *supra* note 355.

382 HOUSE REPORT at 159-60, *reprinted in* 1976 U.S.C.C.A.N. 5775-76.

383 HOUSE REPORT at 163, *reprinted in* 1976 U.S.C.C.A.N. 5779.

because the plaintiff failed to disprove the defendant's claim of innocence."[384]

Commentators have supported Congress' decision:

> Innocent intent should no more constitute a defense in an infringement action than in the case of conversion of tangible personalty. In each case the injury to a property interest is worthy of redress regardless of the innocence of the defendant. Moreover, a plea of innocence in a copyright action may often be easy to claim and difficult to disprove. Copyright would lose much of its value if third parties such as publishers and producers were insulated from liability because of their innocence as to the culpability of the persons who supplied them with the infringing material.[385]

Infringement may be alleged against service providers, such as BBS operators, in NII-related cases. As noted earlier, the court in *Playboy*[386] found the BBS operator *directly* liable for the display of the unauthorized copies on the service, as well as the distribution of unauthorized copies to subscribers. The court held:

> There is irrefutable evidence of direct copyright infringement in this case. It does not matter that [the operator] may have been unaware of the copyright infringement. Intent to infringe is not

---

384 *Id.*

385 3 NIMMER ON COPYRIGHT § 13.08 at 13-291 (1994). *See* P. GOLDSTEIN, COPYRIGHT § 9.4 at 162 (1989) ("the standard rationale for excluding innocence as a defense to copyright infringement is that, as between the copyright owner and the infringer, the infringer is better placed to guard against mistake"; "the strict liability rule should discipline an infringer, who might otherwise mistakenly conclude that his copying will not infringe the copyrighted work, to evaluate the legal consequences of his conduct more carefully").

386 *Playboy Enterprises Inc. v. Frena*, 839 F. Supp. 1552 (M.D. Fla. 1993).

> needed to find copyright infringement. Intent or knowledge is not an element of infringement . . . .[387]

In *Sega Enterprises Ltd. v. MAPHIA*,[388] the court issued a preliminary injunction against the BBS operator, finding a *prima facie* case was established for both *direct* infringement, based on the BBS operator's permitting the uploading of the copyrighted games onto the BBS, and *contributory* infringement, based on the operator's "role in copying [Sega's copyrighted video games], including provision of facilities, direction, knowledge and encouragement."[389] At least two other relevant cases are pending -- one against a commercial on-line service provider[390] and another against

---

[387] *Id.* at 1559.

[388] *Sega Enterprises Ltd. v. MAPHIA*, 857 F. Supp. 679 (N.D. Cal. 1994).

[389] *Id.* at 686-87. With regard to the contributory liability issues, the court found that the BBS operator had knowledge of the uploading and downloading of unauthorized copies of Sega's copyrighted video games and that it solicited the copying of the games. *Id.* at 683.

[390] *See Frank Music Corp. v. CompuServe Inc.*, Civil Action No. 93 Civ. 8153 (JFK) (S.D.N.Y.) (complaint filed Nov. 29, 1993). The Complaint alleges that defendant, by providing access to its BBS by subscribers, engaged in: (1) "permitting, facilitating and participating in the recording of performances of the [Plaintiffs' works] into, and storing such recordings in, CompuServe's computer database by permitting and enabling its paying subscribers to upload such performances thereto"; (2) "maintaining a storage of unauthorized recordings of [the Plaintiffs' works] (uploaded by its subscribers) in and as part of CompuServe's computer database"; and (3) "permitting, facilitating and participating in the recording (*i.e.*, re-recording) of the performances of [the Plaintiffs' works] (theretofore stored in its computer database) by permitting and enabling its paying subscribers to download such recorded performances therefrom." Complaint at 6-7. In addition, the Plaintiffs allege that CompuServe had "control over the nature and content of materials stored in its Bulletin Board and downloaded therefrom"; that CompuServe "had actual knowledge of, or in the exercise of reasonable diligence could have determined, the nature and content of materials stored in its Bulletin Board and downloaded therefrom"; and that CompuServe "had actual notice, or in the exercise of reasonable diligence could have determined, that recordings of [the Plaintiffs' works] were uploaded (recorded) to, stored in, and downloaded (re-recorded) from its computer database." *See* Complaint at 7.

an uploading subscriber, a BBS operator and an Internet access provider.[391]

The Working Group believes it is -- at best -- premature to reduce the liability of any type of service provider in the NII environment. On-line service providers currently provide a number of services. With respect to the allowance of uploading of material by their subscribers, they are, in essence, acting as an electronic publisher. In other instances, they perform other functions. No one rule may be appropriate. If an entity provided only the wires and conduits -- such as the telephone company, it would have a good argument for an exemption if it was truly in the same position as a common carrier and could not control who or what was on its system.[392] The same could be true for an on-line service provider who unknowingly transmitted encrypted infringing material.

It would be unfair -- and set a dangerous precedent -- to allow one class of distributors to self-determine their liability by refusing to take responsibility. This would encourage intentional and willful ignorance. Whether or not they choose to reserve the right to control activities on their systems, they have that right. Service providers expect compensation for the use of their facilities -- and the works thereon -- and have the ability to disconnect subscribers

---

391 *See Religious Technology Center v. NETCOM*, No. C95-20091 (N.D. Cal.) (verified first amended complaint filed March 3, 1995).

392 Under the Communications Act of 1934, a common carrier is required to furnish service to the public upon reasonable request. *See* 47 U.S.C. § 201. A common carrier is defined as "any person engaged as a common carrier for hire, in interstate or foreign communication by wire or radio . . . ." *See* 47 U.S.C. § 153(h). The Supreme Court examined this somewhat circular definition and found that a common carrier in the communications context is one that "makes a public offering to provide [communications facilities] whereby all members of the public who choose to employ such facilities may communicate or transmit intelligence of their own design and choosing . . . ." *See Federal Communications Commission v. Midwest Video Corp.*, 440 U.S. 689, 701 (1979) (citing Report and Order, *Industrial Radiolocation Service, Docket No. 16106*, 5 F.C.C.2d 197, 202 (1966)).

BEST COPY AVAILABLE

who take their services without payment. They have the same ability with respect to subscribers who break the law.

Exempting or reducing the liability of service providers prematurely would choke development of marketplace tools that could be used to lessen their risk of liability and the risk to copyright owners, including insuring against harm caused by their customers,[393] shifting responsibility for infringement to the infringing subscriber through indemnification and warranty agreements, licensing (including collective license agreements), educating their subscribers about infringement and using technological protections, such as tracking mechanisms.

Circumstances also vary greatly among service providers. A bulletin board is simply a computer that the owner allows to be accessed by others using their computers and modems. One needs only a personal computer, a modem, a phone line, and some software to go into business -- at a cost of less than $2,000. There are small, non-profit and large, commercial operators. There are those that try to prevent and react when notified and those that encourage infringing activity. Different service providers play different roles -- and those roles are changing and being created virtually every day. At this time in the development and change in the players and roles, it is not feasible to identify *a priori* those circumstances or situations under which service providers should have reduced liability. However, it is reasonable to assume that such situations could and should be identified through discussion and negotiation among the service providers, the content owners and the government. We strongly encourage such actions in the interest of providing certainty and clarity in this emerging area of commerce.

---

[393] *See* P. GOLDSTEIN, COPYRIGHT § 1.15 at 45 (1989) ("[a]n intermediary can to some extent protect itself by shifting or sharing the risk of infringement through a warranty from the author that he originated the work in question or through an errors and omissions insurance policy").

Implementation of preventative measures, compliance with the law, and development of technological mechanisms to guard against infringement must be encouraged. Service providers should have incentive to make their subscribers more aware of copyright law and to react promptly and appropriately to notice by copyright owner that infringing material is available on their systems. Service providers should make clear that infringing activity is not tolerated on the system and reserve the right to remove infringing material or disconnect the subscriber who participated in the placement of it on the system.

e. CIVIL REMEDIES

Various remedies are available to copyright owners in infringement actions. A copyright owner may seek a preliminary or permanent injunction to prevent or restrain infringement.[394] Courts generally grant permanent injunctions where liability is established and there is a threat of continuing infringement.[395] Courts may also order the impounding of all copies or phonorecords at any time an action is pending.[396] As part of a final judgment, the court may order the destruction (or any other "reasonable disposition") of the infringing copies or phonorecords.[397]

At any time before final judgment is rendered, a copyright owner may elect to recover actual damages and profits of the infringer or be awarded statutory damages.[398]

---

[394] *See* 17 U.S.C. § 502 (1988).

[395] *Superhype Publishing, Inc. v. Vasiliou*, 838 F. Supp. 1220, 1226 (S.D. Ohio 1993).

[396] *See* 17 U.S.C. § 503(a) (1988).

[397] *See* 17 U.S.C. § 503(b) (1988).

[398] 17 U.S.C. § 504 (1988). Statutory damages generally are not available if the infringement occurred before the effective date of registration of the work, unless the infringement occurred after first publication and registration was made within three months of first publication. *See* 17 U.S.C. § 412 (1988 &

Actual damages may be awarded in the amount of the copyright owner's losses plus any profits of the infringer attributable to the infringement (that are not taken into account in the calculation of the losses).[399] Statutory damages may be awarded in an amount between $500 to $20,000 per work infringed.[400]

If an infringer can show that he or she was not aware and had no reason to believe that the activity constituted an infringement, the court may find there was an innocent infringement.[401] Such a finding is a factual determination, and does not absolve the defendant of liability for the infringement.[402] It does, however, give the court discretion to reduce the amount of damages awarded to the copyright owner.[403]

Supp. V 1993).

[399] *See* 17 U.S.C. § 504(b) (1988).

[400] *See* 17 U.S.C. § 504(c)(1) (1988).

[401] 17 U.S.C. § 504(c)(2) (1988).

[402] *D.C. Comics Inc. v. Mini Gift Shop*, 912 F.2d 29, 35 (2d Cir. 1990); *Innovative Networks, Inc. v. Satellite Airlines Ticketing, Inc.*, 871 F. Supp. 709, 721 (S.D.N.Y. 1995). However, the court must remit statutory damages if (1) the infringer "believed and had reasonable grounds for believing" that the use was a fair use, and (2) the infringer was a nonprofit educational institution, library or archives (or its employee or agent) and infringed the reproduction right or a public broadcasting entity (or a person who "as a regular part of the nonprofit activities" of a public broadcasting entity) that infringed by performing a published nondramatic literary work or reproducing a transmission program embodying a performance of such work. *See* 17 U.S.C. § 504(c)(2) (1988).

[403] *See* 17 U.S.C. § 504(c)(2) (1988) ("where the infringer sustains the burden of proving, and the court finds, that such infringer was not aware and had no reason to believe that his or her acts constituted an infringement of copyright, the court . . . may reduce the award of statutory damages to a sum of not less than $200"); *D.C. Comics Inc.*, *supra* note 402, at 35 (defendant's lack of business sophistication and absence of copyright notice on copies were basis for a finding of innocent infringement and statutory damages of only $200). A person who is misled and innocently infringes by relying on the lack of a copyright notice on a copy of a work that was lawfully publicly distributed before March 1, 1989, is not liable for any damages (actual or statutory) for infringements committed before actual notice of registration of the work is received. 17 U.S.C. § 405(b) (1988). The court may allow, however, the

If a copyright owner can show that the infringement was willful, the court may increase statutory damages up to a maximum of $100,000.[404] An infringement may be found to be willful if the infringer had knowledge that the activity constituted infringement or recklessly disregarded the possibility of infringement.[405]

Courts have discretion to allow the recovery of full costs by or against any party other than the United States or its officer.[406] Courts may also award reasonable attorney's fees to the prevailing party under certain circumstances.[407]

f. CRIMINAL OFFENSES

Criminal sanctions are levied against infringers if the infringement was willful and for purposes of commercial advantage or private financial gain.[408] Criminal proceedings must begin within three years after the criminal action arose. Where there is a conviction, the court must order the forfeiture and destruction or other disposition of all infringing copies and "all implements, devices, or

---

recovery of any of the infringer's profits attributable to the infringement. *Id.*

[404] *See* 17 U.S.C. § 504(c)(2) (1988).

[405] *Twin Peaks Prods., Inc. v. Publications Int'l, Ltd.*, 996 F.2d 1366, 1382 (2d Cir. 1993); *Video Views, Inc. v. Studio 21, Ltd.*, 925 F.2d 1010, 1020 (7th Cir.), *cert. denied*, 502 U.S. 861 (1991).

[406] 17 U.S.C. § 505 (1988).

[407] *Id.*; *see also Roth v. Pritikin*, 787 F.2d 54, 57 (2d Cir. 1986) (attorney's fees generally awarded to prevailing plaintiffs because Copyright Act is intended to encourage suits to redress infringement); *Chi-boy Music v. Charlie Club, Inc.*, 930 F.2d 1224, 1230 (7th Cir. 1991) (attorney's fees and costs serve to deter infringement, dissuade defendant's disdain for copyright law, and encourage plaintiffs to bring colorable claims against infringers). No attorney's fees may be awarded for an infringement of copyright before its registration unless, in the case of published works, the infringement occurred after first publication and registration was made within three months of first publication. 17 U.S.C. § 412 (1988 & Supp. V 1993).

[408] *See* 17 U.S.C. § 506 (a) (1988).

equipment" used in the manufacture of the infringing copies.[409]

A recent court decision demonstrates that the current law is insufficient to prevent flagrant copyright violations in the NII context. In *United States v. LaMacchia*,[410] a university student provided clandestine BBS locations on the Internet for the receipt and distribution of unauthorized copies of commercially published, copyrighted software. Because he sought no profit from his actions -- actions that caused substantial economic harm to copyright owners -- he could not be charged under the current criminal provisions of the copyright law, and the court dismissed an indictment charging him with wire fraud, on the ground that his acts did not violate the wire fraud statute.[411] (There would appear, nevertheless, to be every reason to believe that he had committed many civil infringements.)

The Copyright Act also makes certain non-infringements criminal acts, including:

- the placement, with fraudulent intent, of a copyright notice that a person knows to be false on any article;[412]
- the public distribution or importation for public distribution, with fraudulent intent, of any article containing a copyright notice the distributor or importer knows to be false;[413]

---

409 17 U.S.C. § 506(b) (1988).

410 871 F. Supp. 535 (D. Mass. 1994).

411 The indictment alleged that the resultant loss of revenue to the copyright owners was in excess of $1,000,000 over a period of approximately six weeks.

412 17 U.S.C. § 506(c) (1988). The penalties in Section 506(c) apply with regard to copyright notices or "words of the same purport." *Id.*

413 *Id.*

- the removal or alteration, with fraudulent intent, of any notice of copyright on a copy of a copyrighted work;[414] and

- false representation, with knowledge, of a material fact in an application for copyright registration or in any written statement filed in connection with an application.[415]

g. DEFENSES

The Supreme Court has stated that "[a] successful defense of a copyright infringement action may further the policies of the Copyright Act every bit as much as a successful prosecution of an infringement claim by the holder of the copyright."[416] There are a number of legal and equitable defenses available to defendants in copyright infringement actions. Fair use is the most common of the defenses.[417] Others include misuse of copyright by the copyright owner,[418] abandonment of copyright,[419] estoppel, collateral estoppel, laches, *res judicata*, acquiescence, and unclean hands.

Generally, a claim of innocent infringement is not a defense against a finding of infringement. An innocent infringer is liable for the infringement, but a court may reduce -- or, in some instances, remit altogether -- the

---

414 17 U.S.C. § 506(d) (1988).

415 17 U.S.C. § 506(e) (1988).

416 *See Fogerty v. Fantasy*, *supra* note 35, at 1029.

417 *See* discussion of the fair use defense *supra* pp. 73-82.

418 *See F.E.L. Publications, Ltd. v. Catholic Bishop of Chicago*, 754 F.2d 216, 220-22 (7th Cir. 1985); *but see Columbia Pictures Indus. v. Redd Horne, Inc.*, 749 F.2d 154, 161-62 (3d Cir. 1984).

419 *See Pacific & Southern Co., Inc. v. Duncan*, 572 F. Supp. 1186 (N.D. Ga. 1983), *aff'd*, 744 F.2d 1490 (11th Cir. 1984).

amount of damages.[420] However, under certain, specified circumstances, a good faith reliance on a presumption that the term of protection had expired is a complete defense to an infringement action.[421]

As noted earlier, certain uses do not rise to the level of infringement, such as reproduction of a *de minimis* portion of a work.[422] In those cases, the plaintiff will not be able to sustain its burden of proof and no defense will be necessary.[423] In other cases, a defendant may successfully assert that the activity is noninfringing due to the existence of a license -- statutory, negotiated or implied.[424]

---

[420] *See* 17 U.S.C. § 504(c)(2) (1988); *see also supra* pp. 125-26. If a proper copyright notice was affixed to the published copy to which the infringer had access, the court may not give any weight to a claim of innocent infringement in mitigation of damages, except in limited circumstances involving certain infringers (including nonprofit educational institutions and libraries) who violated certain exclusive rights and who believed, and had reasonable grounds for believing that the use was a fair use. *See* §§ 401(d), 504(c)(2) (1988); *see also* 17 U.S.C. § 405(b) (1988) (effect on innocent infringers of omission of copyright notice on copies publicly distributed before March 1, 1989).

[421] *See* 17 U.S.C. § 302(e) (1988) (after a period of 75 years from first publication of a work, or 100 years from its creation, whichever is shorter, a person who obtains from the Copyright Office a certified report that the records relating to the deaths of authors disclose nothing to indicate that the author is living, or died less than 50 years before, may presume that the author has been dead for at least 50 years, and good faith reliance on that presumption is a complete defense).

[422] *See generally* discussion of infringement *supra* pp. 100-07.

[423] Further, no action will lie if the statute of limitations has run. *See* 17 U.S.C. § 507 (1988).

[424] A nonexclusive license may be implied from conduct. *See Effects Assocs., Inc. v. Cohen*, 908 F.2d 555, 558 (9th Cir. 1990), *cert. denied*, 498 U.S. 1103 (1991); *MacLean Assocs., Inc. v. Wm. M. Mercer-Meidinger-Hansen, Inc.*, 952 F.2d 769, 779 (3d Cir. 1991); *see also* 3 NIMMER ON COPYRIGHT § 10.03[A] at 10-38 (1994). Implied licenses, like oral licenses, are always nonexclusive in nature and may be limited in scope. *See Oddo v. Ries*, 743 F.2d 630, 634 (9th Cir. 1984); *Gilliam v. American Broadcasting Cos.*, 538 F.2d 14, 19-21 (2d Cir. 1976). Delivery of a copy of a work by the copyright owner to the moderator of a newsgroup may imply a license to reproduce and distribute copies of the work to the subscribers of that newsgroup, but may not be evidence of an implied license to reproduce and distribute copies to other newsgroups.

All of these defenses are available in the NII environment. For instance, one or more of these defenses, such as fair use or the existence of an implied license, may be successful where a copyright owner's posting to an automatic electronic mail distribution list ("listserv") is reproduced and distributed to the subscribers of that same listserv in connection with a response to or comment on the posting.

9. INTERNATIONAL IMPLICATIONS

a. BACKGROUND

Other countries -- including Australia, Canada, Finland, France, Germany, Japan, Singapore, Sweden, the United Kingdom -- and the European Union are conducting their own studies on their planning for implementation of their national information infrastructures. At the February 1995 G-7 Ministerial Meeting on the Global Information Infrastructure (GII), the Ministers noted that unless rules for the effective protection of intellectual property are taken into account from the outset, the development of the international information superhighway will be severely hindered. How disparate domestic information infrastructures will evolve into a GII will depend on the rules of the road, and one of the most important sets of rules will be those ensuring protection for the works of intellectual property that move through international channels and into the emerging national information infrastructures. As a result, Ministers endorsed the need to work in international fora, including the World Intellectual Property Organization (WIPO), to achieve standards for the adequate and effective protection of intellectual property in international electronic commerce.

Development of the GII will make copyright laws and international copyright rules a concern for every user. When the globe is blanketed with digital information dissemination systems, a user in one country will be able to manipulate information resources in another country in

ways that may violate that country's copyright laws. Indeed, it may be difficult to determine where and when possible infringements may take place because, under the present level of development, a user in France can access a database in the United States and have a copy downloaded to a computer in Sweden. Whose copyright law would apply to such a transaction? Because copyright laws are territorial, and the standards of protection embodied in the international conventions leave room for national legislative determinations, acts that may constitute infringement in one country may not be an infringement in another country. The complexity that such a system creates will make "electronic commerce" over the information superhighways difficult unless the United States moves promptly to identify needs for protection and initiates efforts to work toward a new level of international copyright harmonization.

U.S. copyright industries are significant contributors to the United States' current trade accounts, reducing our balance of payments deficit by some $45.8 billion in 1993. Inadequacies in the present system of intellectual property protection for copyrights and neighboring[425] or related rights, and the consequent losses to these industries from piracy and from trade barriers arising from differences in forms of protection, have been estimated by industry to cost them $15 to 17 billion annually. Improved protection for copyrights and neighboring rights would contribute to reducing these losses and improving the balance of payments.[426]

An important aspect of the participation of foreign entities through a GII in the U.S. domestic information infrastructure is the provision of adequate and effective intellectual property protection in the country wishing to

---

[425] "Neighboring rights" are discussed *infra* p. 134.

[426] *See* S. Siwek & H. Furchtgott-Roth, International Intellectual Property Alliance, *Copyright Industries in the U.S. Economy* (1995).

participate. To the extent that participation in the NII can be linked to the provision of intellectual property protection, it will promote the ability of U.S. businesses to use the NII and the GII to disseminate works to foreign consumers via other countries' information infrastructures. If commercial enterprises are to make full use of the capabilities of the NII to communicate and deliver information and entertainment products, there must be assurances that their intellectual property rights will be protected effectively under strong copyright laws in all countries participating in a GII.

In considering linkages, careful consideration will have to be given to obligations under international intellectual property treaties and other international agreements, such as the North American Free Trade Agreement (NAFTA) and the World Trade Organization (WTO) Agreement on the Trade-Related Aspects of Intellectual Property (TRIPs Agreement), especially in view of the various intellectual property and market access provisions in those agreements.

b. International Framework

In the 1970's, then-U.S. Register of Copyrights Barbara Ringer observed that if Justice Story considered copyright to be the metaphysics of the law, then international copyright is its cosmology. That message is brought home to us in 1995 by the need to evaluate the applicability of copyright in the context of the complexities of international commerce in information and entertainment products via advanced information infrastructures.

First, one must understand that there is no such thing as an international copyright, but rather, there is an international system that sets norms for protection to be implemented in national laws. Several international treaties link together the major trading nations and establish both minimum standards for protecting, under their own laws, each others' copyrighted works and the basis upon which protection is to be extended (*e.g.*, national treatment).

The situation is further complicated because there are two major legal traditions applicable to the protection of what the United States regards as copyrighted works. To understand the complexities of the international copyright law system and the international treaties, it is necessary to have a basic appreciation of these two major legal regimes.[427]

The United States and other countries that follow the Anglo-American or common law legal tradition have "copyright" systems in which the principal focus is on promoting the creation of new works for the public benefit by protecting the author's economic rights. This is seen as part of the basic "social contract" between the State and its citizens. This theory is reflected in the patent and copyright clause in Article 1, Section 8, clause 8 of the U.S. Constitution. The thesis is that providing such protection will induce the creation of more works which will "promote the progress of science" and redound to the public benefit. History has validated this principle which benefits the public as well as creators of copyrighted works.

Countries that follow the civil law tradition, however, regard authors' rights as natural human rights, or part of one's right of personality. As a part of this tradition, in addition to the protection of the author's economic rights, the protection of the author's "moral rights" is an essential part of the system.[428] Moral rights, as reflected in Article

---

[427] *See generally* S. STEWART, INTERNATIONAL COPYRIGHT AND NEIGHBOURING RIGHTS (2d ed. 1989) (hereinafter STEWART). Stewart presents a summary of international copyright principles and synopses of the copyright laws of a number of countries. Stewart also identifies socialist copyright laws as a category. However, since the demise of the USSR, many of the former socialist countries have moved to enact modern copyright legislation. The copyright laws of the People's Republic of China and Russia follow the civil law model.

[428] STEWART at 6. In some common law countries, moral rights are protected by a combination of statutory provisions and common law. In the United States, for instance, this protection is found in Federal legislation, such as the Lanham Act and the Copyright Act, various state legislative provisions

6bis of the Berne Convention, include the right of an author to be named as the author of a work and the right to object to uses of the work which could bring dishonor or discredit on the author's reputation. Often, in civil law systems, moral rights reflect a part of the author's personality and are non-transferable, and may be not waivable. Economic rights, in some instances, may be subordinated to moral rights. Under these systems, only works which are original, in that they reflect the personality of the author, are entitled to authors' rights protection. Productions that do not meet this originality requirement, but still merit some protection, are protected under a system of "neighboring rights."

Needless to say, with such divergent theoretical bases, the copyright and the authors' rights systems are sometimes in conflict. One of these areas of conflict is in the nature and level of rights for owners of neighboring rights.

Neighboring rights are similar to the rights protected by copyright or authors' rights and are applied to protect the rights of producers of phonograms, performers and broadcasters. Under the copyright system, many of the rights covered under neighboring rights are protected as copyright rights. For example, under the U.S. copyright law, sound recording producers and performers are regarded as joint authors of sound recordings. Under *droit d'auteur* (or authors' rights) systems, such producers' and performers' rights would be protected as neighboring rights. Neighboring rights, while similar in economic character to authors' rights, may be protected at a lower level than authors' rights and are entirely separate and distinct from the higher-level rights granted to authors.

---

and the common law of privacy, defamation and the like. *See Final Report of the Ad Hoc Working Group on U.S. Adherence to the Berne Convention*, 10 COLUM. VLA J.L. & ARTS 513, 548-57 (1986); 2 NIMMER ON COPYRIGHT § 8D.02[A] at 8D-10 to -11 (1994).

c. INTERNATIONAL TREATIES AND AGREEMENTS

THE WORLD INTELLECTUAL PROPERTY ORGANIZATION (WIPO)

WIPO is responsible for the administration of, and activities concerning revisions to, the international intellectual property treaties.[429] The principal WIPO copyright and neighboring rights conventions include the Berne Convention for the Protection of Literary and Artistic Works (Paris 1971) (Berne Convention),[430] the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome Convention),[431] and the Geneva Convention for the Protection of Producers of Phonograms Against the Unauthorized Reproduction of their Phonograms (Geneva Phonograms Convention).[432] UNESCO[433] and WIPO

---

[429] There are 155 members of the Convention Establishing the World Intellectual Property Organization (WIPO) as of July 1, 1995. Done at Stockholm on July 14, 1967; entered into force for the United States on August 25, 1970. 21 UST 1749; TIAS 6932; 828 UNTS 3. WIPO also administers the Paris Convention for the Protection of Industrial Property (Stockholm 1967), which is not discussed in this Report.

[430] Berne Convention (with Appendix) for the Protection of Literary and Artistic Works of September 9, 1886, completed at Paris on May 4, 1896, revised at Berlin on November 13, 1908, completed at Berne on March 20, 1914, revised at Rome on June 2, 1928, at Brussels on June 26, 1948, at Stockholm on July 14, 1967, and at Paris on July 24, 1971, amended at Paris on July 24, 1979. Done at Paris on July 24, 1971; entered into force for the United States on March 1, 1989.

[431] There were 48 members of the convention as of July 1, 1995, but the United States is not a member. The Rome Convention is jointly administered by WIPO, the International Labor Organization (ILO) and the United Nations Educational, Scientific and Cultural Organization (UNESCO).

[432] Done at Geneva on October 29, 1971; entered into force on April 18, 1973; for the United States on March 10, 1974. 25 UST 309; TIAS 7808; 888 UNTS 67. There were 53 members of the Convention as of July 1, 1995.

[433] UNESCO is the United Nations Educational, Scientific and Cultural Organization.

jointly administer the Universal Copyright Convention (Paris 1971),[434] which is a lower-level copyright convention that was negotiated in the years following World War II largely to bring the United States into the world of international copyright. Virtually all of the members of the Universal Copyright Convention are also members of the Berne Convention, and by the terms of the conventions the Berne Convention governs relations between members of both.

The Berne Convention is the principal international copyright convention and includes the most detailed provisions. In 1989, the United States joined the Berne Convention, which is the largest copyright convention.[435] While it is generally regarded as providing adequate international standards of protection, some believe that it should be updated to account for advances in electronic communications and information processing technology. Its members come from the world's major legal traditions -- the Anglo-American common law copyright system and the European civil law *droit d'auteur* system. However, despite its level of detail, as previously noted, and in part because it must accommodate differing legal traditions, in some areas its standards may be insufficient to deal with the world of digital dissemination of copyrighted works.

The principal treaty for the protection of neighboring rights, the Rome Convention, was adopted in 1961, and is considered by many to include standards that are inadequate for dealing with the problems raised by current technological advances and the level of trade in the products and subject matter affected by its operation. It provides for the protection of producers of phonograms against

---

[434] Universal Copyright Convention, as revised, with two protocols annexed thereto. Done at Paris on July 24, 1971, entered into force on July 10, 1974. 25 UST 1341; TIAS 7868. As of May 31, 1995, there were 96 members of the Convention.

[435] As of July 1, 1995, there were 114 signatories to the Berne Convention.

unauthorized reproduction of their phonograms, for performers to prevent certain reproductions and fixations of their performances and it provides limited rights for broadcasting organizations. The Rome Convention requires that these rights endure for a period of 20 years. It also provides for protection against certain "secondary uses" of phonograms, such as broadcasting, but it contains the ability for members to reserve, or decline to implement, this right. The United States is not a signatory to the Rome Convention.

The Geneva Phonograms Convention provides for the protection of phonograms against unauthorized reproduction and distribution for a minimum term of 20 years. It does not require signatories to provide a performance right in sound recordings. The United States belongs to the Geneva Phonograms Convention.

WIPO has convened a Committee of Experts on a Possible Protocol to the Berne Convention to account for developments since the 1971 revision of the Convention, and a Committee of Experts on a Possible New Instrument for the Protection of Performers and Producers of Phonograms to consider how to provide improved rights for performers and producers of phonograms.

THE WORLD TRADE ORGANIZATION (WTO)

In addition to the traditional WIPO forum, other international fora now have a significant role in intellectual property policy formulation. The TRIPs Agreement, concluded during the recent Uruguay Round Negotiations, is administered by the World Trade Organization (WTO). The TRIPs Agreement sets significant standards for the protection of copyright and related rights. Perhaps most importantly, it contains provisions to ensure that parties to the TRIPs Agreement fully implement obligations under it.

After defining the relationship between the TRIPs Agreement and the Berne Convention, the TRIPs Agreement reiterates the basic principle of copyright

protection -- that protection extends only to expression and not to ideas, methods of operation, or mathematical concepts.[436]

Article 10 of the TRIPs Agreement confirms that all types of computer programs are "literary works" under the Berne Convention, and requires each WTO country to protect them as such. It also requires copyright protection for compilations of data or other material that are original by reason of their selection or arrangement.

Article 11 of the TRIPs Agreement requires member countries to provide exclusive rights for authors or their successors in title to authorize or to prohibit commercial rental to the public of originals or copies of their copyrighted works for at least computer programs and cinematographic works. The obligation as to rental rights for cinematographic works need not be implemented unless rental has led to widespread copying that is having a material effect on the author's exclusive right of reproduction.

Article 12 of the TRIPs Agreement provides minimum standards for the term of protection for copyrighted works. The term of protection for most works is the life of the author plus 50 years, but whenever the term of protection is not linked to the life of a person, it must be a minimum of fifty years, except for works of applied art or photographs.

Article 9(2) of the Berne Convention bars imposition of limitations on, or exceptions to, the reproduction right except when such limits or exceptions do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holder. Article 13 of the TRIPs Agreement widens the scope of this provision to all exclusive rights in copyright and related

---

[436] This fundamental principle is set forth in Section 102(b) of the U.S. Copyright Act. *See* discussion *supra* pp. 32-35.

BEST COPY AVAILABLE

rights, thus narrowly circumscribing the limitations and exceptions that WTO member countries may impose.[437]

Article 14 of the TRIPs Agreement goes beyond the obligations of the Rome Convention and the Geneva Phonograms Convention and requires member countries to provide sound recording producers a 50–year term of protection and the rights to authorize or prohibit the direct or indirect reproduction and commercial rental of their sound recordings. However, a WTO member country that on April 15, 1994, had a system of payment of equitable remuneration to compensate for rental of recordings is permitted to keep that system.[438]

The Agreement requires WTO countries to make it possible for performers to prevent unauthorized sound recording or reproduction of their live performances. Broadcasting organizations are to be accorded similar rights, although member countries have the option of providing protection consistent with the Rome Convention or providing owners of copyright in works broadcast the right to prevent the same acts. The Agreement also makes Article 18 of the Berne Convention regarding copyright protection of existing works applicable to sound recordings.

d. Copyright Compared to Authors' Rights

Countries with common-law copyright systems such as the United States, and countries with authors' rights systems such as those in Europe, have in some cases defined the rights of certain categories of right holders differently. For instance, European performers, both in audiovisual works and in sound recordings, enjoy certain statutory rights that U.S. performers do not. In the United States,

---

437 This approach is consistent with Section 107 of the U.S. Copyright Act (relating to fair use of copyrighted works).

438 Only Japan and Switzerland qualify under this exception.

these performers rights are guaranteed under contractual or collective bargaining agreements between the audiovisual producers and the performers' unions. Broadcasters have been concerned that harmonization of protection along European lines might have implications for the establishment of performance rights in sound recordings. A consequence of this divergence is that U.S. performers and producers have been denied the ability to share in remuneration for the use of their products and performances in some countries.

e. NATIONAL TREATMENT

The principle of national treatment is the cornerstone of the great international intellectual property treaties -- Berne and Paris. It also has been the keystone of international trade treaties, such as the General Agreement on Tariffs and Trade and the recently established WTO. It is of enormous significance to our copyright industries. As a general matter, the principle of national treatment means that under a nation's laws, a foreigner enjoys no lesser rights and benefits than a citizen of that nation receives, subject to the specific terms of the relevant international conventions. In copyright terms, it means, for example, that a German work for which copyright enforcement is sought in the United States would be treated under U.S. law exactly as if it were a U.S. work.

Some argue, however, that intellectual property rights should be granted only on the basis of reciprocity. The concept of "material reciprocity" means that the United States should grant a right to a foreigner only if his or her country grants U.S. citizens the same right. Under this scenario, the work of a German citizen would only be able to obtain protection under the U.S. law to the extent that German law provided the same, or at least equivalent, protection to works of a U.S. citizen.

THE BERNE CONVENTION

Article 5(1) and 5(2) of the Berne Convention establish the principle of national treatment for works protected by copyright.[439] Under Article 5(1), there is an obligation to

---

[439] Article 5 provides:

(1) Authors shall enjoy, in respect of works for which they are protected under this Convention, in countries of the Union other than the country of origin, the rights which their respective laws do now or may hereafter grant to their nationals, as well as the rights specially granted by this Convention.

(2) The enjoyment and the exercise of these rights shall not be subject to any formality; such enjoyment and such exercise shall be independent of the existence of protection in the country of origin of the work. Consequently, apart from the provisions of this Convention, the extent of protection, as well as the means of redress afforded to the author to protect his rights, shall be governed exclusively by the laws of the country where protection is claimed.

(3) Protection in the country of origin is governed by domestic law. However, when the author is not a national of the country of origin of the work for which he is protected under this Convention, he shall enjoy in that country the same rights as national authors.

(4) The country of origin shall be considered to be:

(a) in the case of works first published in a country of the Union, that country; in the case of works published simultaneously in several countries of the Union which grant different terms of protection, the country whose legislation grants the shortest term of protection;

(b) in the case of works published simultaneously in a country outside the Union and in a country of the Union, the latter country;

(c) in the case of unpublished works or of works first published in a country outside the Union, without simultaneous publication in a country of the Union, the country of the Union of which the author is a national, provided that:

(i) when these are cinematographic works the maker of which has his headquarters or his habitual residence in a country of the Union, the country of origin shall be that country, and

(ii) when these are works of architecture erected in a country of the Union or other artistic works incorporated in a

grant to nationals of countries of the Berne Union national treatment in respect of the rights specifically covered by the Convention. This point is not disputed.[440] However, with respect to any new rights which may be hereafter granted, some have taken the position that the national treatment obligation applies only to the minimum rights in the Convention.[441]

THE ROME CONVENTION

The fundamental problem with the Rome Convention is that, while it generally imposes a national treatment obligation, it permits a number of reservations and exceptions that allow a Member to avoid that obligation for important rights otherwise provided for in the Convention. Article 3.1 of the TRIPs Agreement provides that "[i]n respect of performers, producers of phonograms and broadcasting organizations, this obligation [national treatment] only applies in respect of the rights provided under this Agreement."[442] It also provides that a Member may avail itself of the "possibilities provided in . . . paragraph 1(b) of Article 16 of the Rome Convention . . ." relating to reciprocity for the broadcasting right in respect of phonograms.[443]

---

building or other structure located in a country of the Union, the country of origin shall be that country.

[440] *See* World Intellectual Property Organization, BCP/CE/III/3, Report of the Committee of Experts on a Possible Protocol to the Berne Convention, Third Session, June 21 to 25, 1993, 20-21 (June 25, 1993).

[441] *Id.* at 21.

[442] *See* Trade-Related Aspects of Intellectual Property, Final Act Embodying the Results of the Uruguay Round of the Multilateral Trade Negotiations, Office of the U.S. Trade Representative (Dec. 15, 1993).

[443] *Id.*

THE TRIPS AGREEMENT

Additionally, the TRIPs Agreement includes a national treatment obligation.[444] In respect of copyright the TRIPs national treatment provision incorporates the standards of the Berne Convention, but in respect of neighboring rights, it allows members to impose the exceptions to national treatment permitted by the Rome Convention.[445]

---

[444] Article 3 (National Treatment) provides:

> 1. Each Member shall accord to the nationals of other Members treatment no less favourable than that it accords to its own nationals with regard to the protection of intellectual property, subject to the exceptions already provided in, respectively, the Paris Convention (1967), the Berne Convention (1971), the Rome Convention and the Treaty on Intellectual Property in Respect of Integrated Circuits. In respect of performers, producers of phonograms and broadcasting organizations, this obligation only applies in respect of the rights provided under this Agreement. Any Member availing itself of the possibilities provided in Article 6 of the Berne Convention and paragraph 1(b) of Article 16 of the Rome Convention shall make a notification as foreseen in those provisions to the Council for Trade-Related Aspects of Intellectual Property Rights.
>
> 2. Members may avail themselves of the exceptions permitted under paragraph 1 above in relation to judicial and administrative procedures, including the designation of an address for service or the appointment of an agent within the jurisdiction of a Member, only where such exceptions are necessary to secure compliance with laws and regulations which are not inconsistent with the provisions of this Agreement and where such practices are not applied in a manner which would constitute a disguised restriction on trade.

[445] Article 4 of TRIPs (Most-Favoured-Nation Treatment) provides:

> With regard to the protection of intellectual property, any advantage, favour, privilege or immunity granted by a Member to the nationals of any other country shall be accorded immediately and unconditionally to the nationals of all other Members. Exempted from this obligation are any advantage, favour, privilege or immunity accorded by a Member:
>
> (a) deriving from international agreements on judicial assistance and law enforcement of a general nature and not particularly confined to the protection of intellectual property;
>
> (b) granted in accordance with the provisions of the Berne

Permitting such exceptions can lead to problems in the implementation of a GII.

THE NAFTA

The NAFTA includes a very broad national treatment provision that does not include the possibility of making the broad exceptions provided for under the TRIPs agreement.[446]

f. PRIVATE COPYING ROYALTY SYSTEMS

The manner in which portions of the audio and video private copying royalties collected in some European countries are distributed to claimants may prove to be an impediment to future development of the GII if a similar approach is adopted in respect of digital information dissemination systems. To illustrate, France's Law of July 3, 1985 (1985 Law) establishes a system of neighboring rights protection for performers, audiovisual communication enterprises, producers of phonograms and producers of videograms. The 1985 Law, *inter alia*, grants specified categories of right holders an entitlement to equitable remuneration in respect of the private copying of their works. Some of the 1985 law's provisions are based on reciprocity and thus discriminate against, for example,

---

Convention (1971) or the Rome Convention authorizing that the treatment accorded be a function not of national treatment but of the treatment accorded in another country;

(c) in respect of the rights of performers, producers of phonograms and broadcasting organizations not provided under this Agreement;

(d) deriving from international agreements related to the protection of intellectual property which entered into force prior to the entry into force of the WTO Agreement, provided that such agreements are notified to the Council for TRIPs and do not constitute an arbitrary or unjustifiable discrimination against nationals of other Members.

[446] *See* NAFTA, H.R. Doc. No. 159, 103d Cong., 1st Sess. (1993); 32 I.L.M. 289-456, 605-799 (1993). The NAFTA is binding among the United States, Mexico and Canada.

foreign motion picture interests. Consequently, those provisions may be inconsistent with France's obligations under the Berne Convention and the Universal Copyright Convention, at least to the extent that they apply to Berne or UCC protected subject matter and rights. If this pattern is followed in implementing future legislation, serious impediments to the development of the GII may arise.

g. MORAL RIGHTS

The author's moral rights are provided for under Article *6bis* of the Berne Convention which requires recognition of the right of an author to be named as the author of a work (the right of paternity) and the right for an author to object to uses of a work which would bring dishonor or discredit on his or her reputation (the right of integrity).[447] The controversy over moral rights was one of the reasons that kept the United States out of the Berne Convention for over a century. However, during that time our legal regime evolved and when the United States finally joined Berne, the Congress determined that no changes to

---

[447] Article *6bis* provides:

(1) Independently of the author's economic rights, and even after the transfer of the said rights, the author shall have the right to claim authorship of the work and to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the said work, which would be prejudicial to his honor or reputation.

(2) The rights granted to the author in accordance with the preceding paragraph shall, after his death, be maintained, at least until the expiry of the economic rights, and shall be exercisable by the persons or institutions authorized by the legislation of the country where protection is claimed. However, those countries whose legislation, at the moment of their ratification of or accession to this Act, does not provide for the protection after the death of the author of all the rights set out in the preceding paragraph may provide that some of these rights may, after his death, cease to be maintained.

(3) The means of redress for safeguarding the rights granted by this Article shall be governed by the legislation of the country where protection is claimed.

U.S. law were necessary to comply with the moral rights provisions of Article 6*bis*. Congress found that the existing panoply of remedies available under U.S. common law, various state statutes and Federal laws provided sufficient moral rights protection. These findings were explicitly stated in the Berne Convention Implementing Act.[48] When the Congress was convinced that enhanced protection for moral rights was necessary, legislation was passed.[49]

For the United States, the question is what should be the scope of moral rights under our law. What is the appropriate role for Federal and state legislation? There are even serious Constitutional questions about the possible scope of moral rights legislation that could be part of our Federal copyright law. Such rights would have to be seen as promoting the progress of science and useful arts. They would have to be viewed as part of the Constitutional *quid pro quo* of providing protection in order to promote creativity. Some have argued that such a justification may prove difficult to make.

Even among Berne members, the nature and scope of moral rights varies considerably from country to country, but regardless of their scope and extent, moral rights are typically not transferable and sometimes, may not be waived. The fact that these rights are non-waivable may create difficulties for the commercialization of works in the GII environment. A current report of the multimedia study committee of the Japanese Institute for Intellectual Property suggests that there may be a need either to permit

---

[48] *See* Act of October 31, 1988, Pub. L. 100-568, 1988 U.S.C.C.A.N. (102 Stat.) 2853.

[49] *See* Visual Artists Rights Act of 1990, Pub. L. 101-650, 1990 U.S.C.C.A.N. (104 Stat.) 5128.

the specific waiver of the right of integrity or to limit its application in the digital world.[480]

h. CONFLICT OF LAWS

Conflict of laws issues may arise in GII-related copyright infringement actions. Resolution of these issues determines what country's law the court should apply. If the infringer and the infringement are in the United States, the U.S. Copyright Act would apply. However, different situations may present themselves which will raise conflict issues. For instance, users in country A, where certain actions are not considered copyright infringements, may use works located on servers in country B, where such actions are. Which country's law controls the resolution of a copyright infringement dispute -- the country from which a copyrighted work is uploaded or to which it is downloaded, or the country where the host server is located? In the case of direct transmissions, which country's law applies -- the country of origin of the transmission or the transmitter, or the country of the reception? It may be that rights of the copyright owner are exercised in each country. These issues, however, may be no more problematic than the current conflict issues that arise due to the use of telephones, fax machines or modems in international commerce.

i. HARMONIZATION OF INTERNATIONAL SYSTEMS

There is little dispute that worldwide high-speed digital communications networks will have an enormous effect on the way in which works of authorship will be created, stored, communicated to the public, distributed and paid for. The communication revolution is now bringing new opportunities and new challenges to creators and users of intellectual property. The full implementation of the

---

480 *See Exposure '94: A Proposal for the New Rule of Intellectual Property for Multimedia*, Institute of Intellectual Property 18 (Feb. 1994).

NII and the GII will have an immense effect on our economy, and implementation of such systems internationally will have an equally broad impact on world-wide commerce. The United States must be committed to finding the means to preserve the integrity of intellectual property rights in the materials that will flow in the commerce created in this environment. This is a daunting challenge in the context of the U.S. domestic market. It is an even greater challenge to lay an international groundwork which will ensure adequate and effective protection throughout the world.

As we move toward a world where dissemination of entertainment and information products through on-demand delivery services operating through interactive digital information communications networks is the norm, it may be necessary to harmonize levels of protection under disparate systems of copyright, authors' rights and neighboring rights, and consideration should be given to ways to bridge the gaps among these systems.

If the GII is to flourish, then the intellectual property rights that will undergird the economic structure supporting these infrastructures must unequivocally be granted in national legislation fully on the basis of national treatment for *all* rights and benefits. However, there is some controversy over the scope of the national treatment obligation under the Berne Convention and its application to what some may regard as newly created rights and subject matter. Similar questions arise under other international copyright and neighboring rights conventions as will be later discussed.

The United States is committed to making progress in WIPO toward improving international protection for works protected by copyright and authors rights and the subject matter of neighboring rights. Such progress is essential, especially in view of the needs to deal with the intellectual property issues associated with the emerging GII. The transition into a world-wide information society demands

both a narrowing of the focus on specific issues in the cases of the Berne Protocol and the New Instrument, and the expansion of the WIPO efforts to encompass the digital world in both areas.

In the emerging world of the GII with its digital distribution systems and multimedia works, distinctions among the rights of authors, producers and performers that are the basis for the separation of copyright and neighboring rights are rapidly becoming irrelevant. This new world of information superhighways will mean economic growth, jobs, and exports for all economies to the benefit of authors, producers and performers. Governments need to consider carefully the implications of the inevitable development of the GII for their national economies and their copyright systems. The work in WIPO is relevant to the rapidly emerging digital world of the GII in order to set sound policy, and select the essential elements of the present Berne Protocol and New Instrument texts and work toward reaching international agreement on them.

Discussions on a Berne Protocol and New Instrument afford an opportunity to consider what enforcement norms, beyond the broadly applicable disciplines clearly established in the TRIPs text, will be necessary if rightsholders are to be adequately protected in the NII/GII environment. Thus, rather than replicate the TRIPs enforcement provisions -- which would be redundant and would create the very real possibility of conflicting norms -- work on a Berne Protocol and New Instrument should focus on issues not addressed in TRIPs, such as protection of rights management information, the use of technical security measures and the prohibition of devices and services whose primary purpose or effect is to defeat technical security measures.

One of the most important issues for international norm setting is to define the nature of a dissemination of a work or a transmission of a work in digital form. Is it a

public performance of the work or a reproduction and distribution? Can it be all at the same time? How do rules concerning the right of importation apply in a digital environment? Just as these questions are critical in the domestic context, they are equally acute in the context of international treaties and harmonization of levels of protection. The right to distribute copies of a work by transmission should be included both in the Berne Protocol and the New Instrument, perhaps as a separate right, as an aspect of a distribution right, as part of a right of communication to the public, or an aspect of the reproduction right. While this is an issue that needs much further discussion, the United States believes that such a right is an important part of the Berne Protocol and New Instrument which would be aimed at meeting the needs of the emerging GII.

Provisions to prohibit decoders and anti-copy prevention devices and services also should be included in the Berne Protocol and the New Instrument.[451] The Protocol and the New Instrument should also include a prohibition of the fraudulent inclusion of rights management information and the fraudulent removal or alteration of such information.[452]

To permit the effective development of the GII, national treatment must be the basis for protection in any intellectual property agreement. At an absolute minimum, national treatment must apply to the minimum obligations established in any agreement in WIPO. The author or rights holder should be able to realize fully the economic benefits flowing from the free exercise of his or her rights in any country party to the Protocol or New Instrument. The United States continues to believe that, in respect of any work, this is required by Article 5 of the Berne Convention.

---

[451] *See* discussion *infra* pp. 189-90, 230-36.

[452] *See* discussion *infra* pp. 191-94, 236-38.

To do otherwise in either a Berne Protocol or another agreement on copyright protection would be contrary to Article 20 because it would be a derogation of rights existing under Berne and would not be an Agreement to "grant to authors more extensive rights than those granted by the Convention, or contain other provisions not contrary to this Convention" as provided for under Article 20.[453] To the extent that it has been agreed that the principles of the New Instrument should follow those of the Berne Convention, to do otherwise in respect of related rights would be contrary to the letter and the spirit of the Convention.

U.S. copyright legislation has granted rights that some other nations may regard as new rights beyond those set forth in the Berne Convention -- for example, rental rights in computer programs, sound recordings, and musical works embodied in sound recordings -- and has done so exclusively on the basis of national treatment. The United States has instituted a system of royalties on blank digital audio recording media and digital audio recorders. Benefits from these rights have all been granted on the basis of full national treatment. The United States believes that this is consistent with our obligations under the Berne Convention and other international intellectual property and trade treaties and agreements.

The author or rights holder should be able to realize fully the economic benefits flowing from the free exercise of his or her rights in any country participating in a GII. This is required by Article 5 of the Berne Convention. To do otherwise in either a Berne Protocol or another agreement

---

[453] Article 20 states:

> The Governments of the countries of the Union reserve the right to enter into special agreements among themselves, in so far as such agreements grant to authors more extensive rights than those granted by the Convention, or contain other provisions not contrary to this Convention. The provisions of existing agreements which satisfy these conditions shall remain applicable.

on copyright protection would be contrary to Article 20 because it would be a derogation of rights existing under Berne and not be an Agreement to "grant to authors more extensive rights than those granted by the Convention, or contain other provisions not contrary to this Convention" as provided for under Article 20. To protect new works or to grant new rights in respect of new or presently protected works on the basis of reciprocity, would be contrary to the letter and the spirit of the Convention.

As the GII continues to develop through the international interconnection of NIIs, rules must be formulated to protect the economic rights of providers of entertainment and information products. Such rules should be based on principles of national treatment along the lines of the following:

1. Each country participating in the GII must accord to nationals of another country participating in the GII no less favorable treatment than it accords to its own nationals with regard to all rights and benefits now, or hereafter, granted under its domestic laws in respect of literary and artistic works or fixations[454] embodying such works.

2. Benefits must include the same possibility to exploit and enjoy rights in the national territory of a country participating in the GII as the respective country grants to its own nationals.

3. No country participating in the GII may, as a condition of according national treatment, require rights holders to comply with any formalities in order to acquire rights in respect of literary and artistic works or fixations embodying such works.

---

[454] This reference to fixations includes the subject matter of neighboring rights related to works and their performance.

In addition to these issues of general concern, there are issues that are applicable specifically to the Berne Protocol and to the New Instrument.

Following the Supreme Court decision in the *Feist* case,[455] there is increasing concern that many valuable, factually-oriented databases may be denied copyright protection, or that courts may determine infringement in ways that severely limit the scope of copyright protection for data bases. Providing for a *sui generis* unfair extraction right to supplement copyright protection may prove to be useful in view of legal developments in various national laws and should be given serious consideration. How a right, such as the unfair extraction right proposed in the EU database directive, could protect such databases should be carefully evaluated.

Additionally, the issue of multimedia works will take on an important international dimension. If these are regarded at the international level as works in a new, separate category, the issue of their coverage under the existing conventions and the rule of national treatment will be open to debate. If, however, as current discussions seem to indicate, they are subsumed into the existing categories of works, establishing meaningful rules internationally will be simplified.

Further study to determine what existing rights should be clarified or what other rights may need to be adapted to the emerging digital environment are underway both in domestic and international fora. However, some issues merit identification here, and one of those is the level of protection to be accorded to sound recordings.

Many believe that the time has come to bring protection for the performers and producers of sound

---

[455] *Feist*, *supra* note 36, at 345.

recordings into line with the protection afforded to the creators of other works protected under the Berne Convention. This includes providing high-level standards for rights and benefits granted on the basis of national treatment. This is necessary for a number of reasons. First, there is no just reason to accord a lower level of protection to one special class of creative artists. Second, the extent of international trade in sound recordings makes it imperative that standards of protection be harmonized at a high level. Third, and perhaps most importantly, the digital communications revolution -- the creation of advanced information infrastructures -- is erasing the distinctions among different categories of protected works and sound recordings and the uses made of them.

Concerns also have been raised over the extent and scope of moral rights in the world of digital communications. Some believe that the ability to modify and restructure existing works and to create new multimedia works makes strengthening international norms for moral rights more important than ever before. Others take the view that any changes to international norms for the protection of moral rights must be carefully considered in the digital world. The United States agrees with this view. Careful thought must be given to the scope, extent and especially the waivability of moral rights in respect of digitally fixed works, sound recordings and other information products.

There are issues such as digital fixation, storage and delivery that will need to be taken into account in the New Instrument. There are also questions concerning the scope of rights and the right owners that might be covered by the New Instrument. To the extent possible, definitions in the New Instrument should be identical to those in the Berne Protocol. Otherwise, differences in phrasing could lead to differences in interpretation, and jeopardize the "bridging" of the New Instrument with the Berne Convention and the Protocol. Many of these issues are critical to the United States and other countries.

To attain the needed level of protection internationally, ways to span the differences between the continental *droit d'auteur* and neighboring rights systems and the Anglo-American copyright systems must be developed. An essential element of this effort will be to harmonize levels of protection by establishing standards that can be implemented through either system.

B. PATENT

Development of the NII will depend upon, and stimulate innovation in, many fields of technology, especially computer software, computer hardware and telecommunications. An effectively functioning patent system that encourages and protects innovations in these fields of technology is, therefore, important for the overall success of the NII.

The primary goal of the patent system is to encourage innovation and commercialization of technological advances. To this end, the patent system offers an incentive to inventors to publicly disclose their inventions in exchange for the exclusive right to prevent others from making, using, offering for sale or selling the inventions throughout the United States or importing the inventions into the United States. The patent system serves as an important complement to the copyright system for computer and software innovations by providing protection for functional aspects of these innovations.

Unlike copyright protection which attaches automatically at the moment of fixation, an inventor must specifically request protection by filing a patent application and establish that the invention meets all of the statutory requirements of patentability. Rights are obtained by filing a patent application with the Patent and Trademark Office (PTO), and proceeding through an examination process.

To be patentable, an invention must be new,[456] useful[457] and nonobvious.[458] In addition, the inventor must fully describe and disclose the invention for which patent protection is sought in a patent application.[459] If the PTO determines that all the patentability requirements have been met for the invention for which patent protection is requested, a patent will be granted to the applicant.

Patent protection is available in the United States for inventions without differentiation as to the field of technology: "any new and useful process, machine, manufacture, or composition of matter" can be patented.[460] Despite this breadth, certain limits do exist on what can be patented. For example, a person cannot patent a process that consists exclusively of the steps one would follow to apply a mathematical principle to solve a mathematical problem.[461] This restriction is not statutory; instead, it

---

[456] *See* discussion of 35 U.S.C. § 102 *infra* notes 463-64 and accompanying text.

[457] To be eligible for patent protection, an invention must be either a process, an article of manufacture, a composition or a machine. Discoveries, laws of nature, mathematical algorithms, methods of doing business and the like are not eligible for patent protection. *See* 35 U.S.C. § 101 (1988).

[458] *See* discussion of 35 U.S.C. § 103 *infra* note 465 and accompanying text.

[459] *See* 35 U.S.C. § 112 (1988).

[460] *See* 35 U.S.C. § 101 (1988). This language has been interpreted broadly by the Supreme Court in *Diamond v. Chakrabarty*, 447 U.S. 303, 309 (1980), wherein the Court held:

> The subject-matter provisions of the patent law have been cast in broad terms to fulfill the constitutional and statutory goal of promoting "the Progress of Science and the useful Arts" . . . . Congress employed broad general language in drafting [Section] 101 precisely because such inventions are often unforeseeable.

Judicial precedent does exist denying patentability under Section 101 for claims directed to laws of nature and methods of doing business. *See Parker v. Flook*, 437 U.S. 584, 589 (1978).

[461] *See Diamond v. Diehr*, 450 U.S. 175, 185 (1981) ("[e]xcluded from such patent protection are laws of nature, natural phenomena, and abstract ideas");

arises from judicial interpretation of the law governing patentable categories of invention, and is based on the notion that one cannot preempt use of laws of nature or mathematical truths. Similarly, one cannot patent an arrangement of information or a writing, as such things do not fall within one of the enumerated categories of inventions eligible to be patented.[462]

Once it is determined that an applicant has requested protection for subject matter that is eligible to be patented, the examination process shifts to evaluate the substantive merits of the invention. This evaluation is performed to determine if the invention is "novel" and "non-obvious." The PTO performs this evaluation by comparing the invention undergoing examination to the "prior art." Generally speaking, prior art includes information that is publicly available prior to the filing date of a patent application.[463] An invention satisfies the novelty

---

Diamond v. Chakrabarty, *supra* note 460, at 309 ("new mineral discovered in the earth or a new plant found in the wild is not patentable subject matter. Likewise, Einstein could not patent his celebrated law that $E=mc^2$; nor could Newton have patented the law of gravity. Such discoveries are 'manifestations of . . . nature, free to all men and reserved exclusively to none.'"); *Gottschalk v. Benson*, 409 U.S. 63, 72 (1973) ("the patent would wholly pre-empt the mathematical formula and in practical effect would be a patent on the algorithm itself"); *In re Alappat*, 33 F.3d 1526, 1542 (Fed. Cir. 1994) (noting that the Supreme Court did not intend to make mathematical algorithms a fourth category of unpatentable subject matter along with *Diehr*'s holding that laws of nature, natural phenomena and abstract ideas, but rather that some types of mathematical subject matter standing alone are only abstract ideas).

[462] *See In re Gulack*, 703 F.2d 1381, 1385 (Fed. Cir. 1983) ("[w]here the printed matter is not functionally related to the substrate, the printed matter will not distinguish the invention from the prior art in terms of patentability").

[463] Section 102 of Title 35 defines the different categories of prior art to include patents issued prior to the applicant's filing date by the United States or by other countries, patents issued by the United States after but filed prior to the applicant's filing date, printed publications distributed in the United States or abroad, evidence of public use or public disclosure of the claimed invention in the United States more than one year before the applicant's filing date, and evidence of a sale or an offer to sell the claimed invention in the United States more than one year prior to applicant's filing date. These categories are defined in 35 U.S.C. § 102 (1988):

requirement if it differs in any material way from what is known in the "prior art."[464] An invention satisfies the nonobviousness requirement if a "person of ordinary skill in the art" would not have viewed the invention as having been obvious in view of the prior art at the time the invention was made.[465] Some flexibility is provided to patent

---

> A person shall be entitled to a patent unless —
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or . . . .
>
> • • •
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by applicant for patent, or
>
> (f) he did not himself invent the subject matter sought to be patented, or
>
> (g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other.

[464] Novelty exists unless the prior art completely discloses the invention that is claimed by the patent applicant. For example, if a patent application is filed two years after an article is published in a technical journal which completely discloses the invention claimed in the patent application, the application will be rejected by the PTO on the grounds that the claimed invention lacks novelty over that printed publication through operation of Section 102(b).

[465] Section 103 sets forth the nonobviousness requirement, in pertinent part, as follows:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this

applicants in the United States regarding when they must seek protection to avoid losing patent rights due to prior public disclosure of the invention.[466]

An applicant must also satisfy a number of requirements that govern the contents and form of a patent application. A patent application consists of a specification and claims. The claims of a patent define the metes and bounds of the invention by specifically defining the features of an invention which are protected. Among other things, Section 112 requires that the inventor provide an adequate disclosure of the invention that the applicant has claimed.[467] A disclosure is adequate when it enables a person of ordinary skill to "practice" the invention as claimed without undue experimentation or effort.[468] Section 112 also

---

> title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

35 U.S.C. § 103 (1988).

[466] Under U.S. law, an inventor may rely on a "grace period" to avoid the otherwise patent-defeating effect of an earlier public disclosure of his or her invention. For example, an inventor may be able to obtain a patent on an invention that was disclosed in a technical journal provided she can establish that she conceived of the invention prior to that disclosure. There is a statutory limit of one year imposed by Section 102(b) on the grace period. This grace period is not available in all countries. As a result, applicants must exercise care before disclosing their invention to avoid forfeiting patent rights in countries other than the United States.

[467] Every patent concludes with one or more claims that outline the boundaries of the rights granted by the Government to the patentee. Claims must be commensurate in scope with the disclosure of the applicant, and must be clear and understandable.

[468] The first paragraph of Section 112 states:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth

requires that the inventor disclose the "best mode" of practicing the invention known to him. The requirements of Section 112 serve to ensure that the patent provides a high-quality, technically accurate disclosure of the invention.

Once issued, a patent grants its owner the exclusive right to prevent others from making, using, offering for sale, or selling the claimed invention in the United States, or importing the claimed invention into the United States.[469] A patent owner is given a term of protection that begins on the date the patent is granted and ends 20 years from the date the application leading to the patent was filed.[470] The patent owner must assert these rights against a party that performs any of the acts that would infringe the patent. The patent owner has the initial burden of proving that the accused party infringed one or more of the patent claims.[471] Patent infringement is established by demonstrating that the accused party has made, used, sold, imported or offered to sell a product that falls within the

---

the best mode contemplated by the inventor of carrying out his invention.

[469] *See* 35 U.S.C. § 154(a)(1) (1988), *as amended by* Uruguay Round Agreements Act, Pub. L. 103-465, 1994 U.S.C.C.A.N. (108 Stat.) 4809, 4984 ("[e]very patent shall contain . . . a grant to the patentee . . . the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States or importing the invention into the United States, and, if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States, or importing into the United States, products made by that process, referring to the specification for the particulars thereof").

[470] The term of patents was changed as part of the Uruguay Round Agreements Act, Pub. L. 103-465, 1994 U.S.C.C.A.N. (108 Stat.) 4809, 4984. Under the former system, patent rights would begin on the date a patent was granted and would end 17 years later. As part of the transition to the new system, the term of patents that were pending on June 8, 1995, or which result from applications pending on that date, will begin on the date the patent was granted and will end on the date that is the later of 17 years from the date of grant or 20 years from the earliest effective filing date of the application leading to the patent.

[471] *See* 35 U.S.C. § 271 (1988).

scope of a product patent claim.[472] Similarly, if a patent has been granted on a process, the patent owner must show that the accused party engaged in activity that would infringe the process claims, or that the accused party made, used, sold, offered to sell or imported a product produced using the claimed process.[473] A patent owner's failure to promptly enforce its rights once an infringement is discovered can limit his or her remedies or may even preclude enforcement against that party.

A party accused of infringement can avoid liability by asserting that the patent does not cover the accused product or process.[474] The accused infringer can also assert that one or more of the patent claims is either invalid[475] or that the

---

[472] *See* 35 U.S.C. § 271(a) (1988), *as amended by* Uruguay Round Agreements Act, Pub. L. 103-465, 1994 U.S.C.C.A.N. (108 Stat.) 4809, 4984 ("[e]xcept as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States, or imports into the United States any patented invention during the term of the patent therefor, infringes the patent").

[473] The United States allows the holder of a United States patent on a process to enforce its rights against a third party that uses a process patented in the United States outside the territorial boundaries of the United States and then attempts to import a product produced using that patented process. *See* 35 U.S.C. § 295 (1988).

[474] There are two forms of infringement, "literal" and infringement through operation of the "doctrine of equivalents." Literal infringement means that the accused product or process contains each and every element set forth in the patent claims. Infringement through the "doctrine of equivalents" refers to a situation where the accused product or process does not have each of the elements set forth in the claims but the accused product or process "performs substantially the same function in substantially the same way to obtain the same result as the patented invention." The latter form of infringement is intended to address situations where an accused infringer has made insubstantial changes to a product to avoid liability for infringement. *See Graver Tank & Mfg. Co. v. Linde Air Prods. Co.*, 339 U.S. 605, 607 (1950).

[475] This is most often accomplished by submitting new prior art which was not considered by the PTO in the examination of the application. The accused infringer will typically argue that the new information anticipates or makes obvious the claimed invention. While the statute provides that all claims of a patent are presumed valid, the disclosure of new information that was not considered by the PTO can have significant repercussions when these claims are

patent as a whole is unenforceable.[476] Every claim in a patent, however, is presumed valid.[477] Thus, in district court, the party challenging patent validity must demonstrate through clear and convincing evidence that the patent fails to satisfy one or more of the statutory criteria of patentability (*e.g.*, novelty, utility, nonobviousness), or that the application is defective because it has an inadequate disclosure.[478]

1. PATENTABILITY DETERMINATIONS

The NII will have a tremendous impact on the flow of information. As new sources of information are made available and old sources are made more accessible, the accumulated body of knowledge available for use in patentability determinations will expand. This means that more information will be available to influence decisions on the patentability of an invention, whether in the context of

---

considered by a court. The party may also show that the claims are defective in view of Section 112 because they are broader than what is actually supported by the disclosure.

[476] A party can also preclude the enforcement of a patent without specifically addressing the validity of the patent. This can occur, for example, if the patent owner engaged in "inequitable conduct" before the PTO (*e.g.*, the inventor withheld material prior art from the patent office or made other misrepresentations intended to mislead the PTO), or misused its patent rights (*e.g.*, in an antitrust context). In both instances, the patent will be unenforceable against any and all infringers, even if the patent satisfies all patentability requirements.

[477] *See* 35 U.S.C. § 282 (1988):

> A patent shall be presumed valid. Each claim of a patent (whether independent, dependent, or multiple dependent form) shall be presumed valid independently of the validity of other claims; dependent or multiple dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting such invalidity.

[478] A party can also challenge the validity of a patent in a reexamination proceeding before the Patent and Trademark Office. In such a proceeding, however, the basis for challenge is limited to novelty and obviousness in view of only certain types of prior art, namely, printed publications and patents.

the patent examination process or during challenges to patent validity through litigation in the Federal courts.[479] Thus, the most significant impact that the NII will have on the patent system will be in relation to issues that are affected by the degree of availability of "prior art."

Over the past twenty years, access to sources of information -- particularly patents and printed publications -- has been vastly improved through the development and use of on-line database services. These services document the existence and content of patents and printed publications, and in some instances, provide access to the complete text and electronic images of such documents. It is important to recognize, however, that the information that can be retrieved through these services invariably exists as an original, paper document disseminated through traditional publication channels (*e.g.*, technical journals or publications, domestic and foreign patent documents).

The NII will dramatically change the way information is prepared and disseminated. It will improve the number, diversity, accessibility and quality of traditional on-line services. It will also foster creation of new forms of "electronic publications" that are different in character from traditional paper-based publications. Examples of such electronic publications include electronic versions of traditional paper-based publications that supplement or reorganize presentation of the content of the paper-based publication; informally prepared documents such as a posting of technical or other information on a particular topic-driven forum; and formally designed and developed

---

[479] Prior art plays a critical role in patentability determinations. It serves to define the state of the art at the time a patent application is filed (*e.g.*, it establishes the level of ordinary skill in the art). Specific items of prior art serve as the basis of denying patentability to a particularly claimed invention, either singularly in the context of novelty or through combination in the context of obviousness. Because of this, it is imperative that all sources of information that relate to an invention be integrated into patentability determinations.

electronic publications that are not printed on paper, but are disseminated exclusively through an electronic forum.

Electronic publications such as these will supplement the wealth of publicly accessible information that is used in patentability determinations. However, these new types of electronically disseminated documents are different in character from traditionally printed and indexed patents and publications, and as such, could raise questions when used as prior art in a patentability determination, either before the PTO or during litigation. For example, the information contained in electronically-disseminated documents may not be printed originally on paper, and as such, there may be no tangible evidence regarding the date the information was first publicly disclosed or as to the contents of the document as disclosed on that date. There are no uniform guidelines or industry standards presently that govern the memorialization of either the contents or the date of first public disclosure of such documents. A second problem is that the degree of distribution of or public accessibility to electronic documents is not presently measured and may prove unmeasurable. Limited availability of a document can render that document unusable as a source of information as prior art.[480] Both issues, however, are key factors in determining whether a document is in the prior art.

A second category of concerns relates to the technical accuracy of electronically disseminated documents. To be a usable and reliable prior art document, the contents of the document must be technically accurate and informative. The types of documents that are disseminated electronically today, however, vary tremendously as to their content and accuracy. Thus, while certain information could be posted on a forum, with a reliable documentation of the date of that disclosure and its contents, it would not be certain that

---

[480] *See In re Hall*, 781 F.2d 897, 899 (Fed. Cir. 1986) (publicly catalogued doctoral dissertation in publicly accessible library properly considered prior art document).

the disclosure itself is technically accurate and usable as prior art. Informally created documents, such as postings on a forum, are not typically subjected to any form of peer review or content screening. The lack of quality control could therefore complicate evaluation of information contained in these electronic documents, which, in turn, could affect patentability, particularly in the context of litigation.

2. INFRINGEMENT DETERMINATIONS

As noted in other sections of this Report, some questions exist regarding whether or how copyright owners will be able to effectively enforce their rights in their works on the NII. The issues related to the enforcement of copyrights on the NII do not have an analogue with regard to patent protection. This is because each patent provides a precise definition of the nature of activities that will infringe the patent owner's rights. And while some have raised concerns over the ability of patent owners to prove infringement where the infringing activities were facilitated by or conducted on the NII, these concerns do not appear to be well founded.

Consider a patent claim covering a new data compression process used for communicating information over the NII. To infringe the patent owner's rights, one would have to perform each of the acts specifically outlined in the process claim. To prove infringement, the patent owner could rely on any evidence that the accused party used the process. This could be done by showing that the accused infringer developed and distributed a software program that, when used by a third party, would infringe the process claim (*e.g.*, the software would require the third party to follow the steps outlined in the process claim and thus lead to infringement of that claim). Alternatively, the patent owner could show that data was distributed over the NII in the compressed format, and then establish the source of the data. Considered fully, it does not appear to be an insurmountable problem for the patent owner to identify

infringing parties and establish a sufficient quantum of proof that the accused infringer performed a particular series of acts, which, once performed, infringed one or more patent claims.

3. PATENTABILITY OF SOFTWARE

Another issue considered with regard to its relationship to the NII is the eligibility of computer software for patent protection. Computer software-related inventions have enjoyed some degree of protection under the patent system since the beginning of the computer industry. In terms of distinguishing which aspects of software-related inventions could or could not be patented, the courts and the PTO have relied on a number of legal doctrines. Under one of these doctrines, computer program code *per se* has been held to be ineligible for patent protection because it is a writing that does not fall within one of the enumerated categories of invention. Another of these doctrines provides that processes, including those implemented in software, that are indistinguishable from the steps one would follow in applying a mathematical principle to solve a mathematical problem cannot be patented.[481] These two doctrines have served to exclude protection for software-related inventions independent of machines or processes as implemented on a computer.

A series of decisions rendered in 1994 by the Court of Appeals for the Federal Circuit has clarified the boundaries of patent-eligible subject matter for software-related

---

[481] The courts developed a test -- the Freeman-Walter-Abele test -- to distinguish claims covering "mathematical algorithms" from those on products and processes that use or rely upon mathematical principles. *See In re Freeman*, 573 F.2d 1237 (CCPA 1978), *as modified by In re Walter*, 618 F.2d 758, 766-68 (CCPA 1980); *In re Abele*, 684 F.2d 902, 907 (CCPA 1982). *See also In re Meyer*, 688 F.2d 789, 796 (CCPA 1982). The Patent and Trademark Office has promulgated guidelines for interpreting and applying the two-part test for statutory subject matter for inventions involving mathematical algorithms. *See* 1106 Off. Gaz. Pat. Office 5 (Sept. 5, 1989) and 1122 Off. Gaz. Pat. Office 189 (Jan. 1, 1991).

inventions. In one decision, the Federal Circuit concluded that an "old" memory that was "reconfigured" through the storage thereon of a "data structure" (an ordered arrangement of information) constituted a patentable invention.[482] In other cases, both before and after this holding, the Federal Circuit concluded that a data structure, *per se*, and as incorporated into a process without any additional physical elements or steps in the process, did not create patentable subject matter.[483] The combined effect of the cases suggests that software can transform unpatentable objects into patentable ones and as such must be given weight in patentability determinations, but information *per se* and abstract ideas continue to be treated as non-statutory subject matter. The trend -- as far as can be ascertained -- is to provide a broader eligibility for software aspects of inventions than was available previously.

While there may be some degree of uncertainty relating to the precise boundaries of patent-eligibility for software, this alone does not suggest that this topic should or even could be resolved by the Working Group. Finer resolution of the boundaries of patent-eligibility for software could result in greater or more restricted protection for software. Whatever the result, the ramifications run far past those that must be considered in the context of the NII. Changes affecting patent eligibility for software-related technologies will affect more than simply the software innovation that will develop incident to development and use of the NII. And resolution of these boundaries of protection under the patent law for software will not directly affect the significant development efforts underway now related to the NII. Considered from a different perspective, development of the NII may lead to more software development, particularly related to

---

[482] *In re Lowry*, 32 F.3d 1579 (Fed. Cir. 1994).

[483] *In re Trovato*, 42 F.3d 1376 (Fed. Cir. 1994); *In re Warmerdam*, 33 F.3d 1354 (Fed. Cir. 1994).

telecommunications and networking, but it will not present unique issues in terms of patent eligibility for software.

C. TRADEMARK

A trademark is quite different from either a copyright or a patent. A trademark is any word, name, symbol or device, or any combination thereof, that serves to identify and distinguish the source of one party's goods or services from those of another party. A service mark is the same as a trademark, except that it identifies and distinguishes the source of services rather than goods. In this report, the terms "trademark" and "mark" are intended to refer to both types of marks.

The purpose of a trademark is twofold -- to identify the source of products or services and to distinguish the trademark owner's goods and services from those of others. As long as a trademark fulfills these functions, it remains valid. Trademark ownership rights in the United States arise through use of a mark. Continued use of a mark is necessary to maintain trademark rights. The owner of a trademark is entitled to the exclusive right to use the mark. This entitlement includes the ability to prevent the use, by unauthorized third parties, of a confusingly similar mark. Marks used by unrelated parties are confusingly similar if, by their use on the same, similar, or related goods or services, the relevant consumer population would think the goods or services come from the same source.

Unlike patent and copyright law, Federal trademark law coexists with state and common-law trademark rights. Therefore, registration at either the Federal or state level is not necessary to create or maintain ownership rights in a mark. For example, priority of trademark rights between owners of confusingly similar marks, regardless of whether

the marks are Federally registered, is based upon first use of the mark.[484]

Federal trademark law is embodied in the Lanham Act[485] and is based upon the commerce clause of the Constitution.[486] Therefore, to obtain a Federal trademark registration, in most cases[487] the owner of a mark must demonstrate that the mark is used in a type of commerce that may be regulated by Congress.[488] Additionally, the Trademark Law Reform Act of 1988[489] amended the Lanham Act to establish trademark rights, which vest upon registration following use of the mark in commerce, as of the filing date of a trademark application indicating a bona fide intent to use the mark in commerce.[490]

Goods and services to which a mark applies in a trademark registration are categorized according to the Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks of June 15, 1957, as revised at Stockholm on July 14, 1967, and at Geneva on May 13,

---

[484] Priority may also be established by the filing date of a Federal registration based upon an intent to use a mark (15 U.S.C. § 1051(b) (1988)) or a foreign filing (15 U.S.C. § 1126 (1988)).

[485] 15 U.S.C. § 1051 *et seq.* (1988 & Supp. V 1993). The Lanham Act, as amended, forms Chapter 22 of Title 15 of the U.S. Code.

[486] The first Federal trademark law in the United States was found unconstitutional because it was premised on the patent clause of the Constitution.

[487] Certain foreign-based applications may register without a showing of use in commerce. 15 U.S.C. § 1126(e) (1988).

[488] 15 U.S.C. § 1127 (1988 & Supp. V 1993). "The word 'commerce' means all commerce which may lawfully be regulated by Congress." This includes interstate commerce, commerce between the United States and a foreign country, and territorial commerce.

[489] Pub. L. 100-667, 1988 U.S.C.C.A.N. (102 Stat.) 3935.

[490] 15 U.S.C. § 1051(b) (1988).

1977 (International Classification). This treaty, of which the United States is a member, is administered by WIPO. WIPO convenes a meeting of experts, including representatives of the United States, every five years to consider and adopt changes to the International Classification. These meetings will be an important means to effect changes to the International Classification to accommodate the changing goods and services available in connection with the NII and the GII. In preparation for the next meeting of experts, which is likely to take place in late 1995, a working group which includes the United States convened in March 1995 at WIPO to discuss proposals to amend the International Classification.

Remedies against trademark infringement and unfair competition are available to trademark owners under both state and Federal law.[91] In this regard, the owner of a Federal trademark registration has certain benefits. In a court proceeding, registration on the Principal Register constitutes *prima facie* evidence of the registrant's ownership of the mark.[92] Registration on the Principal Register may also be used as a basis to block importation of infringing goods[93] or to obtain remedies against a counterfeiter.[94] The Lanham Act provides that under certain conditions the right to use a registered mark may become incontestable.[95] Additionally, the Lanham Act provides for cancellation of registrations on certain grounds.[96]

---

[91] *See* 15 U.S.C. §§ 1114 - 1121, 1125(a) (1988 & Supp. V 1993) for relevant Federal law provisions. State and common law unfair competition provisions include such torts as passing off and dilution.

[92] 15 U.S.C. § 1057(b) (1988).

[93] 15 U.S.C. § 1124 (1988).

[94] 15 U.S.C. § 1116(d) (1988); 18 U.S.C. § 2320 (1988).

[95] 15 U.S.C. § 1065 (1988).

[96] 15 U.S.C. § 1064 (1988).

Existing legal precedent accepts electronic transmission of data as a service and, thus, as a valid trademark use for the purpose of creating and maintaining a trademark.[497] Additionally, existing legal precedent applies the available remedies for infringement and unfair competition to such acts occurring through the unauthorized use of trademarks electronically.[498] However,

---

[497] *See In re Metriplex Inc.*, 23 U.S.P.Q.2d 1315 (TTAB 1992), where the PTO's Trademark Trial and Appeal Board authorized registration of a mark identifying "data transmission services accessed via computer terminal" and accepted, as evidence of use of the mark, a print-out of the mark as it appeared on the computer screen during transmission.

[498] In the case of *Playboy Enterprises Inc. v. Frena*, *supra* note 386, the operator of a subscription computer bulletin board system (Frena) transmitted as part of its bulletin board system photographs owned by Playboy Enterprises Inc. (PEI). PEI's trademarks were obliterated on some photographs transmitted by Frena and PEI's "Playboy" and "Playmate" marks appeared on other photographs transmitted by Frena. These transmissions were without authorization from PEI. The court found, in part, that Frena infringed PEI's registered trademarks when it used PEI's "Playboy" and "Playmate" marks in unauthorized transmissions of PEI's photographs as part of its computer bulletin board system. The court also found Frena to have committed acts of unfair competition, in violation of Section 43(a) of the Lanham Act (15 U.S.C. § 1125(a) (Supp. V 1993)), both by obliterating PEI trademarks from photographs and by placing its own advertisement on PEI photographs. Such acts made it appear as if PEI authorized Frena's use of the images on the bulletin board; *see also Showtime/The Movie Channel, Inc. v. Covered Bridge Condominium Ass'n*, 693 F. Supp. 1080 (S.D. Fla. 1988), *modified*, 881 F.2d 983 (11th Cir. 1989), *remanded*, 895 F.2d 711 (1990), in which the court found that interception of cable television programming broadcast via satellite which appropriates trademarks and trade names in a manner likely to cause confusion is unfair competition in violation of Section 43(a) of the Lanham Act (15 U.S.C. § 1125(a) (Supp. V 1993)). *See also Pacific & Southern Co. Inc. v. Satellite Broadcast Networks Inc.*, 694 F. Supp. 1575 (N.D. Ga. 1988).

In California, a U.S. District Court has entered a preliminary injunction against the owner of a computer bulletin board system based upon claims of copyright and trademark infringement and unfair competition. In *Sega Enterprises Ltd. v. MAPHIA*, *supra* note 388, Sega demonstrated that the bulletin board system knowingly solicited the uploading and downloading of unauthorized copies of Sega's video games, and that whenever such a copy is played, Sega's trademark appears on the screen. Further, Sega's trademark appeared, with the BBS operator's knowledge, on file descriptors on the bulletin board. With regard to the trademark and unfair competition claims, the court concluded that there is support for the conclusion that the transferred games are

in the future, with widespread access to and use of the NII, both the legitimate and infringing electronic uses of trademarks may increase. Unfair competition may increase in the context of the NII to the extent that it may be easier to copy or remove trademarks from electronically transmitted information than from labeled products or from services identified in print media.

In the global context for trademarks, there are likely to be ramifications of global electronic transmission of trademarks in view of the fact that trademark rights are national in scope. Conflicts may arise where the same or similar trademarks are owned by different parties in different countries, or where different countries apply different standards for determining infringement. Additionally, conflicts may arise where terms are in general use in one country, but restricted as either trademarks or geographical indications in another country.

With regard to access to the NII, several conflicts have arisen where trademark owners are aware that third parties have registered Internet domain names that are identical to their trademarks. One of the first opportunities for a court to define the legal relationship between trademarks and the registration and use of site domain names on the Internet could be presented in an action presently in Federal district court in the Southern District of New York. The owners of the MTV cable network ("MTV") have filed an action seeking injunctive relief and monetary damages from a former employee who is offering a daily report about the rock music industry on the Internet using the site name "mtv.com." MTV is alleging, *inter alia*, trademark infringement and unfair competition.[49] In another

---

counterfeit under the Lanham Act, and that confusion, if not on the part of the bulletin board users, is inevitable on the part of third parties who may see the copied games after they enter the stream of commerce.

[49] To send and receive information on the Internet, various organizations connected to the Internet must register their domains, networks and autonomous systems numbers with Network Solutions, part of the Internet

instance, Kaplan Educational Centers filed an action alleging trademark infringement and unfair competition against its competitor, Princeton Review, which had registered an Internet domain name of "Kaplan.com." Kaplan reported that an arbitration panel ruled, in an unreported opinion, that Princeton Review must relinquish all rights in the "Kaplan.com" name and transfer it to Kaplan. Other companies noted in the news that have expressed concern recently about third party domain name registration of their well-known trademarks include Coca Cola, McDonald's, MCI and Hertz.

D. TRADE SECRET

Unlike many of the other forms of intellectual property protection previously mentioned, trade secrets are generally protected by state law, not Federal law.[900] Trade secret protection is very limited. A trade secret holder is only protected from unauthorized disclosure and use of the trade secret by others and from another person obtaining the trade secret by some improper means.[901]

National Information Center (InterNIC). The InterNIC performs this function under a cooperative agreement with the National Science Foundation. Within the context of a prescribed format, the Internet user may register any domain name as long as the identical domain name has not been previously registered with the InterNIC by another party. According to the InterNIC, there is no state or Federal statutory or regulatory authority under which the InterNIC performs this registration function. The InterNIC does not conduct an examination of trademark or other records before registering a domain name. However, the applicant is required to follow a policy relating to assumption of responsibility and to potential conflict resolution. The InterNIC policy is available at URL http://rs.internic.net.

[900] Federal law does prohibit the disclosure of confidential information obtained by federal officials in the course of their official duties. *See* 18 U.S.C. § 1905 (1988).

[901] "A trade secret is commonly defined as any formula, pattern, device or compilation of information which is used in one's business, and which gives him an opportunity to obtain an advantage over competitors who do not know or use it." RESTATEMENT OF TORTS § 757, Comment b (1939).

There are several factors used to determine if subject matter qualifies as a trade secret. Among the factors considered are the extent of measures taken by the trade secret owner to guard the secrecy of the information and the ease or difficulty with which the information could be properly acquired or duplicated by others.[502] Based on these considerations, the general rule is that subject matter cannot be successfully protected as a trade secret if it is widely distributed. However, if adequate security precautions are taken to ensure that access to the subject matter being distributed is treated as secret, the subject matter may still be considered a trade secret.

Whether trade secret owners distribute their trade secrets through the NII will largely depend on the extent that they believe that the secrecy of the trade secret will not be compromised by such a distribution. Consequently, if the NII is going to be used as a tool for disseminating trade secret information the NII must be equipped with adequate security measures to ensure that trade secrets distributed through the NII will remain secret.[503]

In addition to the concerns regarding security precautions, issues of jurisdiction may also arise when the NII is used to transmit trade secrets. As trade secrets are generally protected by state law, determining which state's law should control in a trade secret dispute may become an important choice of law issue in the NII. This choice of law issue, however, is no more problematic than those issues presently associated with the distribution of trade secrets and can be adequately resolved by the choice of law rules presently codified in state law.

---

[502] *Id.* The trade secret owner may communicate the trade secret to others provided that those to whom the trade secret is communicated pledge not to reveal the trade secret to others. *Id.*

[503] *See* discussion of methods of protection for material distributed through the NII *infra* pp. 183-200.

To some degree, whether trade secret owners distribute their trade secrets through the NII may also depend on the type of information products and services being disseminated. For instance, it has been suggested that the most common way to protect software is through trade secret protection.[504] Unlike most trade secret information, computer programs can be copied and used without the copier ever understanding or viewing the information in a comprehensible form. Although the trade secrecy problems associated with computer programs are not unique to the NII, the capabilities of the NII may cause these problems to become more prevalent.

---

[504] *See CONTU Final Report* at 127.

II. TECHNOLOGY

The NII has the potential to be a robust and widely used medium for the creation, dissemination and use of information-based products and services. To realize this goal, the technical and security needs of users, service providers, carriers and content providers must be addressed. First, to be successful, the NII must deliver on its promise to facilitate the flow of information and information-based products and services to consumers. The easier it is for a consumer to retrieve, purchase or use an information product or service, the more likely it is that the consumer will do so. Second, content providers must have secure and reliable means for delivering information products and services to consumers. This means that content providers must be confident that the systems developed to distribute these works will be secure and that works placed on these systems will remain authentic and unaltered. If content providers cannot be assured that they will be able to realize a commercial gain from the sale and use of their products using the NII, they will have little incentive to use it. Third, service providers and carriers must be able to ensure that their systems which will serve as the physical infrastructure of the NII will address the needs of users and content providers.

Technological solutions are playing and will continue to play a significant role in meeting these needs. A wide variety of new tools to facilitate access and use of Internet-based information products and services are being rapidly developed and deployed. Concurrently, copyright owners are developing and implementing technical solutions to facilitate the delivery of protected works in an easy, consumer-friendly yet reliable and secure way. These solutions enable copyright owners not only to protect their works against unauthorized access, reproduction, manipulation, distribution, performance or display, but also serve to assure the integrity of these works and to address copyright management and licensing concerns.

A. CONTENT SECURITY AND USER ACCESS NEEDS

It is important to recognize that access needs of users of the NII have to be considered in context with the needs of copyright owners to ensure that their rights in their works are recognized and protected. One important factor is the extent to which the marketplace will tolerate measures that restrict access to or use of a copyrighted work. Conversely, without providing a secure environment where copyright owners can be assured that there will be some degree of control over who may access, retrieve and use a work, and, perhaps most importantly, how to effectuate limits on subsequent dissemination of that work without the copyright owner's consent, copyright owners will not make those works available through the NII.[505]

Technology can provide the solutions for these needs. Technological solutions exist today and improved means are being developed to better protect digital works through varying combinations of hardware and software. Protection schemes can be implemented at the level of the copyrighted work or at more comprehensive levels such as the operating system, the network or both. For example, technological solutions can be used to prevent or restrict access to a work; limit or control access to the source of a work; limit reproduction, adaptation, distribution, performance or display of the work; identify attribution and ownership of a work; and manage or facilitate copyright licensing.

---

[505] For a detailed discussion of these and other applications of technology that may be used to provide protection for copyrighted works, *see* Symposium, Technological Strategies for Protecting Intellectual Property in the Networked Multimedia Environment, cosponsored by the Coalition for Networked Information, Harvard University, Interactive Multimedia Association, and the Massachusetts Institute of Technology (April 2-3, 1993); *see also* M. D. Goldberg & J. M. Feder, *Copyright and Technology: The Analog, the Digital, and the Analogy*, Symposium, WIPO Worldwide Symposium on the Impact of Digital Technology on Copyright and Neighboring Rights, 37 (March 31 - April 2, 1993).

B. THE INTERNET EXPERIENCE

In the past few years, there has been an explosion in the popularity and volume of use of the Internet. The Internet serves today, through electronic mail and remote access, to connect people to information and to deliver information products and services. An almost incomprehensible variety of information has been made widely and easily accessible through this system, originally designed to serve the needs of the Department of Defense in the 1960s.

Because the Internet and applications which use it, like electronic mail and "World Wide Web," have exploded in popularity and use, systems used today and being designed for short term implementation are likely to serve as the foundation for communications through the NII. Indeed, in one very real sense, the Internet that is in use today is a prototype for the NII. Therefore, it is useful to discuss briefly the foundation of the Internet as it exists today.

The Internet provides individuals many different ways to disseminate and retrieve information. The basic concept of communications underlying the Internet is that a user with his or her personal computer or workstation can "connect," either directly or through a succession of intermediary computers, in a uniform manner to a "remote" computer that acts as a "server" of information. The user attaches to the remote computer and uses the services offered by the remote computer system (hence the term "server" for the remote system). The service may provide for immediate transfer of information (*e.g.*, file transfer) or eventual transmission (*e.g.*, electronic mail). For example, a user can direct a remote computer to send data through an established connection to the user's computer. Alternatively, the user can send information to the remote computer that will eventually result in information being sent back to the user's computer from that remote computer. In either sense, there is a "connection"

established between the two computers that permits the flow of information, typically at the request of the user.

The simplest type of connections use a character-based "dumb terminal" interface (*e.g.*, characters alone are used to convey information to and from the user). This type of scheme consists essentially of the user using his computer to do nothing more than type commands which the computer executes. The "controlled" computer executes the appropriate programs that handle location and transfer of data. One such scheme is the "telnet" protocol. Telnet uses a command line interface (*e.g.*, one types commands) to initiate actions at the remote computer. Using telnet, a user can execute a program or routine on a remote computer to obtain a directory of files resident on that computer, navigate among directories of information, and transfer files.

If a user wishes to simply retrieve information stored as a file on the remote server, he or she can execute a process on the remote computer termed "file transfer protocol" or ftp. This is the most basic form of transfer; one simply instructs the remote computer to send to a specific file resident on the remote computer to the requester's computer. A menu driven interface and service for retrieving files from remote servers was subsequently developed by the University of Minnesota. This scheme, termed "gopher," relies on established directories of information that are consolidated at specific sites on the Internet. The requester uses his or her computer to instruct the remote computer to execute the gopher program, which then establishes a connection to a directory server (*e.g.*, a "gopher server"). The gopher server will provide the requesting user easily navigable listings of files that can be retrieved from the gopher server. The gopher server acts more or less as a conduit for identifying a specific file and delivering it to the requesting computer.

Other schemes have been established for searching pre-established indices of information about information

resources on the Internet. Examples include "Archie," "Veronica" and the Wide Area Information Search (WAIS).[506] All of these examples were originally developed as UNIX-implemented programs to perform file transfer-related tasks; namely, searching and retrieval of information about either the location of remote servers with certain types of information or of remote servers that had specific files. The information sent back to the user with these tools consists of information about these servers that can then be used with the other tools (*e.g.*, ftp or gopher) to retrieve a specific file.

There are now more sophisticated tools for users to access and retrieve information on remote servers on the Internet. These tools typically are programs that implement the common UNIX-based protocols but which actually run on the user's personal computer or workstation. Thus, once a connection to an appropriate "Internet provider" is established, a user may start a program on his personal computer that acts as a "gopher client." The "gopher client" will permit the user to retrieve information from a remote server directly to his or her personal computer. Connections between the user's personal computer and the "Internet provider" to carry these communications can be established using a "dial-up" or analog phone connection using an appropriate communication protocol or a link over a digital transmission line. The most significant benefit of these tools is that they are typically based on a graphical interface, which makes it easier for the user to manage the connection and interact with remote servers.

Many of the established protocols have been integrated and enhanced using tools that can access what is termed the World Wide Web. The World Wide Web (Web) is a scheme whereby organizations use graphical

---

[506] Archie is a service which provides directories of repositories of gopher servers; Veronica provides indices of documents which contain key words.

"front ends" to provide remote users with point and click access to information stored on their servers, as well as access through "links" to information stored on other remote servers. Web "browsers" are programs that run on a personal computer or workstation that enable a user to establish connections to these graphical front ends, view, retrieve and manipulate data provided by those remote servers. Examples of popular, currently available Web browsers include: Mosaic, from the National Center for Supercomputing Applications; Netscape Navigator, from Netscape Communications Corporation; and Enhanced Mosaic, from Spyglass, Inc. Web browsers typically provide support for electronic mail, gopher and ftp sessions, and, most importantly, support retrieval and display of a much broader variety of information (*e.g.*, text, audio, image and multimedia data).

At the root of the Web are several of the established protocols (*e.g.*, gopher, ftp, various e-mail standards) and three new protocols: the Hypertext Markup Language (HTML), a file format for embedding navigational information in graphical and text-based documents; the Hypertext Transfer Protocol (HTTP), a communications protocol for communicating navigational information and other data between the remote server and the requesting computer; and the Uniform Resource Locator (URL) scheme for identifying the location (*e.g.*, the location of the remote server and the location on that server of the file corresponding to the URL) of Web-accessible documents. A number of organizations and groups are also working to develop additional protocols to enable secure communications. Some of these protocols have been published as draft specifications at this point, including the Secure Sockets Layer (SSL), the Secure Hypertext Transfer Protocol (SHTTP) and the Enhanced Mosaic Security Framework. The integration of these various protocols into a single, easy to use, understandable interface has led to a tremendous increase in the popularity and use of the World Wide Web and, correspondingly, of the Internet as a means for providing and retrieving information.

C. ACCESS AND USE TECHNOLOGICAL CONTROLS

1. SERVER AND FILE LEVEL CONTROLS

Technology will likely play a central role in implementing controls on the access to and use of protected works at both the file and server level.

Distribution of digital works can be regulated by controlling access to the source of copies of the works -- information or data servers. Access to these servers can vary from completely uncontrolled access (*e.g.*, the full contents of the server are available without restriction) to partially controlled access (*e.g.*, unrestricted access is granted to only certain data on the server) to completely controlled access (*e.g.*, no uncontrolled access in any form is permitted). Access control is affected through user identification and authentication procedures that deny access to unauthorized users to a server or to particular information on a server.[807]

---

[807] The most common elements of such systems involve authentication of the user desiring access to the server. Typically, the server will require entry of a user name and a password. More elaborate mechanisms, however, have been developed. For example, some servers do not grant access once a user is verified, but rather, they terminate the connection and reestablish it from the server to the registered user's site. Such call-back systems tend to govern fully controlled server environments (*e.g.*, where access will only be granted to known and verified users). Other systems are being implemented that use more elaborate authentication systems. For example, a number of companies are developing hardware key systems that require the user, after establishing a preliminary connection, to verify that connection by inserting a hardware device similar to a credit card into the user's computer system. That device then sends an indecipherable code to verify the identity of the user.

Protection of works by means of access control mechanisms assumes that the system in question is in a physically secure environment and is not vulnerable to external means to circumvent access control. Several instances have been reported where the security of a supposedly secure server system was compromised, for example, through passive monitoring during the exchange of unencrypted passwords. As a consequence, many are currently pursuing efforts to improve security at the access control level.

Nearly all service providers, including commercial on-line services such as CompuServe and America Online, private dial-up bulletin board systems, and servers accessible through the Internet, control access to their systems. For example, via the Internet, users today can connect to a bewildering array of public servers using a variety of schemes, including telnet, ftp, gopher and the World Wide Web. Some information providers grant full unrestricted access to all the information contained on their servers, and use control simply to comport with physical limitations of their servers (*e.g.*, to limit the number of concurrent users). Other information providers restrict access to users with accounts or grant only limited access to unregistered users. For example, using ftp a user can often log on to a remote server through the Internet as an "anonymous" user (*e.g.*, a user for which no account has been created in advance); however, such a user will normally only be able to access specific data on the server. Of course, an information provider can elect not to provide uncontrolled access, and permit only those with pre-established accounts to access the server. This is more common with commercially-oriented on-line service providers. Control over access to a server containing protected works will typically be the first level of protection a content provider will look for before making their protected works accessible through the server.

A second level for controlling access to and use of protected works can be exerted through control measures tied to the electronic file containing the work.

Restrictions on access at the file level can be implemented using features in "rendering" software. For example, a content provider may develop specialized software products or implement features in general purpose software products that would control by whom, and to what degree, a protected work may be used. Such restrictions could be implemented using features in the rendering software, a unique file format or features in an established file format, or a combination of both. "Control" measures could also be implemented to determine if the content

provider had authorized certain uses of the work, as well as some means to control the degree to which a user would be able to subsequently "manipulate" the work. For example, the rendering software could preclude a user who had not obtained the appropriate authority from the content provider or who enters an unauthorized or expired password from using the data. Rendering software can also be written to deny general access to the work if the file containing the work is not a properly authenticated copy (*e.g.*, the file has been altered from the version as distributed by the content provider). Such features will be possible provided that sufficient information regarding authorized use can be associated with the file containing the information product (*e.g.*, through inclusion in a file header, packaged and sealed in an "electronic envelope" sealed with a digital signature, embedded through steganographic means,[508] etc.).[509]

2. ENCRYPTION

In its most basic form, encryption amounts to a "scrambling" of data using mathematical principles that can be followed in reverse to "unscramble" the data. File encryption thus simply converts a file from a manipulable file format (*e.g.*, a word processor document or a picture file that can be opened or viewed with appropriate software) to a scrambled format.[510] Authorization in the form of possession of an appropriate "key" is required to "decrypt" the file and restore it to its manipulable format.

---

[508] *See* discussion of stenography *infra* pp. 188-89.

[509] For example, the software may deny access to a work if the electronic file containing the work has been altered or information stored in the file does not match data supplied by a user necessary to open and use the file. *See* discussion of digital signatures *infra* pp. 187-88.

[510] Rendering or viewing software may integrate encryption and file manipulation into a single software package. In other words, the rendering software, after getting a password, will decode the file and permit the user to manipulate the work (*e.g.*, view it or listen to it), but only with the provided rendering software.

Encryption techniques use "keys" to control access to data that has been "encrypted." Encryption keys are actually strings of alphanumeric digits that are plugged into a mathematical algorithm and used to scramble data using that algorithm. Scrambling means that the original sequence of binary digits (*i.e.*, the 1s and 0s that make up a digital file) that constitute the information object is transformed using a mathematical algorithm into a new sequence of binary digits (*i.e.*, a new string of 1s and 0s). The result is a new sequence of digital data that represents the "encrypted" work.[511] Anyone with the key can decrypt the work by plugging it into a program that applies the mathematical algorithm in reverse to yield the original sequence of binary digits that comprise the file. Although most commonly thought of as a tool for protecting works transmitted via computer networks, encryption can be and is used with virtually all information delivery technologies, including telephone, satellite and cable communications. Of course, once the work is decrypted by someone with the key, there may be no technological protection for the work if it is stored and subsequently redistributed in its "decrypted" or original format.

A widely publicized technique for sending secure transmissions of data is "public key" encryption. This technique can be used to encrypt data using an algorithm requiring *two* particular keys -- a "public" key and a "private" key. The two keys are affiliated with the recipient to which the information is to be sent. The "public" key is distributed publicly, while the private key is kept secret by recipient. Data encrypted using a person's public key can only be decrypted using that person's secret, private key. For instance, a copyright owner could encrypt a work using the public key of the intended recipient. Once the recipient receives the encrypted transmission, he could then use his private key to decrypt that transmission. No secret (private)

---

[511] An algorithm is a set of logical rules or mathematical specification of a process which may be implemented in a computer.

keys need to be exchanged in this transaction. Without the private key of the intended recipient, the work cannot be read, manipulated or otherwise deciphered by other parties. Of course, if a decrypted copy is made and shared, then others could manipulate the work unless other means are used to protect it.

There may be instances where someone other than the communicating parties needs access to the encrypted data. A key escrow system is one way such access might be obtained. A key escrow system would hold the key needed to decrypt an encrypted transmission in "escrow." Such a system could be maintained by a private organization or the government, and anyone seeking access to an encrypted transmission would have to demonstrate their need for the key through a process, such as obtaining a search warrant, that ensures the legitimate privacy and security needs of users of encrypted transmissions.

3. DIGITAL SIGNATURES

Mathematical algorithms can also be used to create digital "signatures" that, in effect, place a "seal" on a digitally represented work. Generating a digital signature is referred to as "signing" the work. The algorithms can be implemented through software or hardware, or both. The digital signature serves as means for authenticating the work, both as to the identity of the entity that authenticated or "signed" it and as to the contents of the file that encodes the information that constitutes the work. Thus, by using digital signatures one will be able to identify from whom a particular file originated as well as verify that the contents of that file have not been altered from the contents as originally distributed.

A digital signature is a unique sequence of digits that is computed based on (1) the work being protected, (2) the digital signature algorithm being used, and (3) the key used

in digital signature generation.[512] Generating a digital signature uses cryptographic techniques, but is not encryption of the work; the work may remain unencrypted so it can be accessed and used without decryption. In fact, digital signatures and encryption can be used simultaneously to protect works. Generally, a signature is computed for a copyrighted work first and then the work (including the seal) is encrypted. When the work is to be used, the work is decrypted, then the signature (*i.e.*, the seal) is verified to be sure the work has not been modified (either in its original or encrypted form). If the work is never changed, the seal need never be removed or changed. If the work is changed, a new seal must be computed on the revised information.

Typically, the digital signature is incorporated in some manner in the transmission that constitutes the work. Often, the sender will also distribute his public key as well. The signature serves as a "seal" for the work because the seal enables the information to be independently checked for unauthorized modification.[513] If the seal is verified (independently computed signature matches the original signature), then the work is a bona fide copy of the original work -- *i.e.*, nothing has been changed in the file that constitutes the work.

4. STEGANOGRAPHY

Innovative new techniques are being developed to address security or management driven concerns relating to dissemination and use of digitally-encoded information.

---

[512] The signature is generated using the binary digits of the work plus the value of the private key as inputs to the computation defined by the algorithm. Thus, the digital signature for an information object is a unique sequence of digits for that work. Specifically, a signature is not the same for different works using the same private key.

[513] Anyone who has access to an information object, in addition to having access to the work, also has access to the digital signature for the object. Consequently, the digital signature for the object may be recomputed and used to independently confirm the integrity of the object by comparing it to the digital signature appended to the object.

For example, methods have been developed that can encode digitized information with attributes that cannot be disassociated from the file that contains that information. This field of technology has been termed "steganography" and been conceptually referred to as "digital fingerprinting" or "digital watermarking."

In essence, using steganographic techniques, a party can embed hidden messages in digitized visual or audio data. The embedded information does not degrade or otherwise interfere with the audio or visual quality of the work. Instead, the embedded information can only be detected if specifically sought out. More advanced steganographic techniques based on statistical or entropically-directed encoding are proving to be difficult to defeat. For example, one system modulates a known noise signal with the information to be embedded and adds the "scaled" signal to the original data. Once encoded in this fashion, the steganographically encoded identification data is distributed throughout the work as subliminal noise and, like noise, cannot be fully eliminated from the work. Thus, one can ensure detection of an embedded message even after substantial corruption of the data, such as might occur through compression/decompression, encoding, alteration or excerpting of the original data. By providing a means to indelibly tag a work with specific information, steganography is likely to play a complementary role to encryption as well as authentication techniques based on digital signatures.

D. CONTROLLING USE OF PROTECTED WORKS

Content providers will rely on a variety of technologies, based in software and hardware, to protect them against unauthorized uses of their information products and services.

One example can be found in the Audio Home Recording Act. This Act requires that manufacturers of

digital audio recording devices and digital audio interface devices incorporate features that limit serial copying.[514] The hardware is programmed to read certain coding information contained in the "digital subcode channel" of digital sound recordings and broadcasts. Based on the information it reads, the hardware circuitry will permit unrestricted copying, permit copying but label the copies it makes with codes to restrict further copying, or disallow copying. The serial copy management system allows unlimited first generation copying -- digital reproduction of originals (such as CDs distributed by record companies), but prevents further digital copying from those reproductions.[515]

Similar systems can be implemented through hardware, software or both, using the concepts discussed above (*e.g.*, rendering software and encryption technology). For example, files containing works can include instructions used solely to govern or control distribution of the work. This information might be placed in the "header" section of a file[516] or another part of the file. In conjunction with receiving hardware or software, the information, whether in the header or elsewhere, can be used to limit what can be done with the original or a copy of the file containing the work. It can limit the use of the file to view- or listen-only. It can also limit the number of times the work can be retrieved, opened, duplicated or printed.

---

514 *See* 17 U.S.C. § 1002 (Supp. V 1993).

515 *See* H.R. REP. NO. 102-873(I), 102d Cong., 2d Sess., *reprinted in* 1992 U.S.C.C.A.N. 3578, 3579-80, 3583 n15.

516 A "header" is a section of a digital work where information, data, codes and permitted uses may be embedded. Such information may actually be embedded anywhere in the work, but for ease of reference, this Report refers to such information as embedded in a header. Terms such as "label" and "wrapper" are also used to refer to what this Report refers to as a "header."

E. MANAGING RIGHTS IN PROTECTED WORKS

Systems for managing rights in works are being contemplated in the development of the NII. These systems will serve the functions of tracking and monitoring uses of copyrighted works as well as licensing of rights and indicating attribution, creation and ownership interests. A combination of file- and system-based access controls using encryption technologies, digital signatures and steganography are, and will continue to be, employed by owners of works to address copyright management concerns. Such security measures must be carefully designed and implemented to ensure that they not only effectively protect the owner's interests in the works but also do not unduly burden use of the work by consumers or compromise their privacy. And measures should be studied to ensure that systems established to serve these functions are not readily defeated.

To implement these rights management functions, information will likely be included in digital versions of a work (*i.e.*, copyright management information) to inform the user about the authorship and ownership of a work (*e.g.*, attribution information) as well as to indicate authorized uses of the work (*e.g.*, permitted use information). For instance, information may be included in an "electronic envelope" containing a work that provides information regarding authorship, copyright ownership, date of creation or last modification, and terms and conditions of authorized uses. As measures for this purpose become incorporated at lower levels (*e.g.*, at the operating system level), such information may become a fundamental component of a file or information object.

Once information such as this is affiliated with a particular information object (*e.g.*, data constituting the work) and readily accessible, users will be able to easily address questions over licensing and use of the work. For example, systems for electronic licensing may be developed based on the attribution or permitted use information

associated with an information object. Electronic contracts may be used.[517] Providers may inform the user that a certain action -- the entering of a password, for instance, to gain access to the service or a particular work, or merely the use of the service -- will be considered acceptance of the specified terms and conditions of the electronic license.

The Library of Congress' Electronic Copyright Management System may be instrumental in rights management schemes. The proposed system, which is under development, has three distinct components: (1) a registration and recordation system, (2) a digital library system with affiliated repositories of copyrighted works, and (3) a rights management system.[518] The system will serve as a testbed to gain experience with the technology, identify issues, prototype appropriate standards, and serve as a working prototype if full deployment is pursued later.

An important element of doing business in the digital environment will be the ability to move money from users to the providers of the various information and entertainment products and services.[519] Presently,

---

[517] *See* discussion of electronic contracting *supra* pp. 53-59.

[518] *See* R.E. Kahn, *Deposit, Registration and Recordation in an Electronic Copyright Management System*, Proceedings of Technical Strategies for Protecting Intellectual Property in the Networked Multimedia Environment, Interactive Multimedia Assoc. (Jan. 1994). The registration and recordation system will be operated by the Library of Congress and will enable electronic filing of documents, automated registration and recordation of transfers of ownership and other copyright-related documents. The digital library system will be composed of a set of distributed repositories for copyrighted works, and will support search and retrieval based upon an electronic bibliographic record. The rights management system will be a distributed system which will permit use of selected copyrighted materials on the Internet, and will have some on-line rights-granting services. Electronic mail will be used to license nonexclusive rights, with or without recordation of the transactions.

[519] The IITF Committee on Applications and Technology is addressing electronic commerce issues, including the electronic transfer of funds through the NII.

transactions follow models wherein the actual assets do not move in the system, but rather only representations of the assets. That is to say, if a consumer selects a pay-for-view motion picture from a cable service provider, the consumer gives the service provider a credit card number. The service provider sends the credit information to a clearinghouse where it is verified and sent on to a bank for payment. Such methods of payment are relatively expensive because of the number of players and transactions involved.

Some believe that a more efficient and cheaper method of payment is "digital cash." Using a digital cash system, actual assets are transferred through digital communications means in the form of individually identified representations of bills and coins -- similar to serial numbers on hard currency. There are a number of systems being developed to accomplish such money movement, which should allow consumers to move actual assets through the NII or GII, rather than simply transferring a message to other existing systems to move the money for a transaction.

One payment system relies on the existing credit and debit card and banking systems. It avoids transaction costs by simply accumulating users' transactions and charging their debit card or billing the accumulated charges to their credit card once in a fixed time period, depending on volume and the cumulative amount of charges. However, the use of the third party bank for verification and collection adds cost to the transactions. In addition, the anonymity of cash purchases is lost, and there is an increased risk that transactions may be monitored by organizations that track spending habits of consumers.

A more complex system uses "smart cards" and public key encryption to move actual assets within the system. Such systems are common in Europe, for instance, for public transportation and telephone charges. Under such systems, a pre-paid card with a programmed amount of value or "cash" is issued to a consumer, and the card's

account is debited when it is used for a purchase. Such systems protect anonymity because debiting of the card does not require the consumer to reveal her identity; it is legal tender just like cash. Such systems for use in the NII and GII are under development by both European and U.S. firms.

F. ENCRYPTION EXPORT CONTROL

U.S. manufacturers are currently prevented from exporting software and hardware with certain types of encryption technology.[520] This is due to an export licensing system developed over the last 50 years in order to limit proliferation of encryption technology that could hinder efficient intelligence gathering and effective law enforcement. U.S. software manufacturers that produce "mass market" products indicate that there is a significant demand internationally for software products with strong encryption capabilities. They believe that their inability to deliver such products is leading to the development and sale of these needed products by foreign software developers. Relaxation of export controls would permit U.S. businesses to compete with foreign companies that presently incorporate strong encryption technology in their products, but would make it even more difficult for the United States and its allies to fight international terrorism, narcotic trafficking, corruption, smuggling of nuclear materials, and other criminal activities.

Export controls are administered through a bifurcated system in the United States. The nature of the technology, product or information to be exported dictates the Agency

---

[520] There is an ongoing review of policies governing the export of computer and networking technologies that incorporate effective encryption technology, and there has been some relaxation of prior controls. For example, technologies used to identify and authenticate users and files are generally not restricted. This, however, does not address the concerns as articulated by U.S. manufacturers.

from which the party wishing to export must turn to obtain a license to export.

- Export licensing of arms, ammunition, and implements of war is handled by the Office of Defense Trade Controls (ODTC) of the Department of State pursuant to the Arms Export Control Act.[521]

- Export licensing of items not exclusively controlled for export by another Department or agency of the Federal Government is handled by the Bureau of Export Administration (BXA) of the Department of Commerce.[522]

When a party wishes to export products containing an encryption technology, a Commodity Jurisdiction (CJ) Ruling is made that determines whether the item is on the Munitions List or the Commerce Control List (CCL). If the item is determined to be on the Munitions list, the State Department reviews the request for an export license. Conversely, if the item is found to be on the CCL, then it is assigned an Export Control Classification Number (ECCN) which is used to determine the requirements for its export licensing.[523] The Commerce Department has exclusive statutory jurisdiction over licensing of CCL items, and in practice presents a less stringent licensing scheme than for munitions items.

Development of an optimal NII and GII requires strong security as well as strong intellectual property rights.

---

[521] ODTC maintains the U.S. Munitions List -- a list of specific technologies subject to their review for export licensing purposes. *See* 22 U.S.C. § 2778 (1988).

[522] BXA maintains the Commerce Control List (CCL), which governs export control of all items (commodities, software, and technical data) subject to BXA export controls. *See* 15 C.F.R. § 799.1(a) (1994).

[523] *See* 15 C.F.R. § 799.1(g) (1994).

Copyright owners will not use the NII or GII unless they can be assured of strict security to protect against piracy. Therefore, encryption technology is vital because it gives copyright owners an additional degree of protection against misappropriation.

Encryption is equally important to other users of the NII and GII as well. Industries that transmit sensitive information -- either internally or to other businesses -- also require high levels of security. Banks, accounting firms, and securities houses are prime examples of businesses that routinely transmit sensitive transactional information. In addition, absent strong encryption, medical and legal professionals using the NII may have difficulty reassuring their clients that sensitive personal information will not be compromised.

The growth of the NII and GII is sparking increased international demand for encryption technology. However, for national security reasons, the United States strictly controls the export of many encryption products for sale abroad. This policy protects vital U.S. national security and law enforcement interests, but critics contend that it is slowing the spread of encryption technologies that could be used to protect intellectual property transmitted through the NII and GII and causing U.S. manufacturers to lose sales to foreign competitors who are not constrained by U.S. export controls. To evaluate these complaints, the Clinton Administration has directed the Commerce Department, through the newly created Office of Strategic Industries and Economic Security, to conduct studies on the export controls of encrypted software and their impact on U.S. manufacturers -- which were expected to be completed by July 1995.

Recognizing the important role that encryption technology plays in fostering a secure and useful NII, the Working Group supports efforts to work with industry on key-escrow encryption technologies and other encryption products which could be exported without compromising

200

U.S. intelligence gathering and law enforcement. The Working Group believes that proliferation of such technology will enable U.S. industry to meet the needs of the international market for these products and continue to lead the development of the GII.

G. DEVELOPMENT OF STANDARDS

A common concern related to development of the NII is the development of standards. Obviously, some level of interconnection, interoperability and standardization of telecommunications, computer, wireless, satellite, broadcast and cable television technologies and networks will be needed to achieve the full potential of the NII. The need for standards, however, does not suggest that any one entity must be established to develop and implement a comprehensive suite of standards. Rather, consistent with historical trends firmly established in the computer industry, the marketplace will develop the best suite of standards to make the NII viable.

The computer industry tends to follow certain general trends in the development and implementation of solutions to commonly encountered problems.[524] The most common

---

[524] Many examples of this evolutionary pattern exist. Examples of *de facto* and formally recognized standards that derived from a single company include the Hayes-compatible modem command set, developed by the Hayes Company to control its modem products; the Ethernet local area network standard developed by Xerox to link minicomputers at the Palo Alto Research Center which eventually led to the development of the IEEE 802.3 standard; and the PCL and Postscript printer control/page description languages, developed by Hewlett-Packard and Adobe, respectively.

Examples of standards that evolved from a collaboration of companies include: the Extended Industry Standard Architecture (EISA) bus standard, introduced by a consortium of nine companies including AST Research, Compaq, Epson, Hewlett-Packard, NEC, Olivetti, Tandy, Wyse, and Zenith; the Musical Instrument Digital Interface (MIDI) interface standard for the connection of synthesizers, instruments, and computers, developed by the major synthesizer manufacturers; and the Personal Computer Memory Card International Association (PCMCIA) standard for PC Cards, PC Card-based peripherals, and the slot designed to accept them developed by the PCMCIA group of manufacturers and vendors.

trend is for an "early implementer" to develop a "point-to-point" solution to a specific problem (*e.g.*, a solution which solves the problem solely from the perspective of that developer's needs). Alternatively, a consortium of companies will work together to jointly develop a solution to address the problem. Depending on the frequency of the problem, other individual companies or consortia will develop different solutions to the problem. Over time, one solution will begin to emerge as a *de facto* industry standard. It may gain that status through consumer or user preference, through effective promotion by one company or a consortium of companies, or, more typically, a combination of both. Once it appears that an industry consensus is emerging, efforts begin to convert that *de facto* standard into a more formally recognized industry standard. This can occur through accreditation efforts sponsored by private organizations, such as the American National Standards Institute (ANSI) or the Institute for Electrical and Electronic Engineers (IEEE); through domestic governmental standard setting organizations, such as the National Institute for Standards and Technology (NIST), the Department of Energy (DOE) or the Department of Defense (DOD); or through international organizations like the International Telecommunication Union. As these *de facto* standards become established, either informally or formally, vendors and systems providers incorporate these standards into their products or make those products compatible with those standards. Once established, the standards tend to evolve to accommodate improvements using the standard setting organizations. Eventually, many standards are implemented at the operating system level.[525]

Understanding this common progression is important in understanding how the NII will likely develop. At this point in time, many different solutions are being developed

---

[525] For example, essentially every modern personal computer operating system available today supports a number of *de facto* or recognized industry standards such as Ethernet, PCL/Postscript, and TCP/IP.

to address the needs of users, content providers, service providers and carriers. Most of these developments fall into the class of point-to-point solutions to serve specific needs. As these early systems lead to development of standards, the various industries supporting the NII's development will formally or informally establish *de facto* and formally recognized standards. Once standards begin to emerge or become established, the major operating systems developers will incorporate or support them at the operating system level. Thus, solutions developed to address the needs and concerns of users, content providers, service providers and carriers will evolve and become integrated into the infrastructure of the NII.

Over time, point-to-point solutions will become established as standards and/or incorporated into operating systems. When this happens, uniform means for identifying the author of a work, authenticating the contents of an information object, ensuring the secure transmission of information objects between remote sites, and authorizing subsequent use of information objects after the first transfer, will be possible. At this point, however, given the nascent state of the NII, it would be inappropriate to suggest that a comprehensive system could best be devised from a central planning perspective.

Interoperability and interconnectivity of networks, systems, services and products operating within the NII will enhance its development and success. Standardization of copyright management (standardized header information and format, for instance), as well as technological protection methods (such as encryption), may also be useful. The question of whether any standards should be established, either through government regulation or industry consensus, however, is not within the purview of this Working Group. The issue of what those standards should be, if established, is similarly outside the scope of the area of

inquiry of the Working Group.[526] If a standard is established, however, protection of intellectual property rights used in that standard is of concern to this Group.

The intellectual property rights implications of the standards-setting process are not new with the development of the NII. The Federal Communications Commission, for instance, has established standards in related areas without interfering with the legitimate rights of intellectual property rights owners.[527]

The Working Group finds that in the case of standards to be established, by the government or the private sector, the owner of any intellectual property rights involved must be able to decline to have its property used in the standard, if such use would result in the unauthorized exercise of those rights. If the rights holder wishes to have its intellectual property as part of the standard, an agreement to license the necessary rights on a nondiscriminatory basis and on reasonable terms may be required. In the case of *de facto* standards, arising out of market domination by an intellectual property rights holder, the antitrust laws may provide a remedy for anticompetitive uses of the standards.

---

[526] The IITF Committee on Applications and Technology has responsibility for addressing the issue of standards.

[527] Recently, the FCC adopted technical standards that define a patented system as the AM radio stereophonic transmitting standard in the United States. *See* 58 Fed. Reg. 66,300 (daily ed. Dec. 20, 1993). The FCC conditioned the selection of the patented system as the standard on the agreement of the patent owner to license its patents to other parties "under fair and reasonable terms." *Id.* at 66,301.

III. EDUCATION

A. BACKGROUND

Public awareness of the importance of intellectual property in the information age is essential to the successful implementation and growth of the NII. The average citizen has only the most general understanding that there are patents, copyrights and trademarks, let alone an understanding of the legal, economic and trade issues involved. Indeed, many lawyers do not have an understanding of this highly specialized area of the law. However, as the convergence of computer and communications technology brings the capability of high speed computers and communications networks into our homes, we all have the possibility to become not only authors and users of copyrighted works, but printers, publishers, exhibitors and distributors as well.

Most people do not have a very clear idea about the role of intellectual property law in encouraging creativity and the importance of intellectual property to our economic well-being. Recent studies show that the core copyright industries -- those that create copyrighted works -- represent an estimated $238.6 billion in annual contribution to the U.S. economy. Moreover, other related industries, such as those that distribute copyrighted works, account for an additional contribution of approximately $120 billion annually. Between 1991 and 1993, while the entire U.S. economy grew at an annual rate of approximately 2.7 percent, the core copyright industries grew twice as fast, at the rate of 5.6 percent. Furthermore, the employment generated by these industries grew at four times the annual rate of the whole economy in the period between 1988 and 1993.[528] Users must learn enough about this topic to appreciate just what respect for intellectual property laws

---

528 *See Copyright Industries in the U.S. Economy, supra* note 426.

can do for them, and why a seemingly harmless transaction on a computer network may have a great effect on the benefits they get from the intellectual property system.

Users are likely creators, too. In that role they will benefit directly from being able to decide how and under what conditions other users will be able to use their works. It may be that a user will decide to dedicate his or her work to the community at large and not assert the rights that the law grants. Others may chose to assert their rights in a general way and make their works available on a good faith "pay if you like it" basis like much of the shareware available today. Others may insist on strict enforcement of their rights and allow only specified access on limited terms and conditions. The point is that all users should understand the law sufficiently to know that they have all of these options available to them. Copyright is the body of law that lets such a system work. It appropriates to intangible goods -- copyrighted works -- the characteristics of tangible property. This is what lets the information marketplace work.

While it is necessary to increase public awareness in these areas, it will not be easy. Intellectual property law is typically perceived by non-lawyers as being incomprehensible with its own "technical" jargon and legalistic terminology that do not provide clear cut rules in many circumstances. Many often resist learning such "legalese" and want to see clearer and more easily understandable rules. Unfortunately, a mere recitation of "do's and don'ts" is not enough to explain to NII users how the copyright system affects their interests, and why certain activities are not allowed by the law.

It is not only intellectual property law that presents complexities for the NII user. The underlying information technology is also difficult to understand, and it is constantly evolving and presenting users with new capabilities. Just learning about these capabilities and how to use them is difficult enough for users. It is also difficult

for users to understand that they may not be able to always use all of the new facilities to copy, perform and use works that the technology allows.

Overcoming these barriers is also difficult because the market for copyrighted works is complex with many participants. Individual users generally do not appreciate the impact that an unauthorized use of a protected work can have in that market. This is especially true when the unauthorized use has an immediate benefit to the user, and no immediately visible harm to others. How tempting it is to simply make yourself a copy of a piece of shareware and not pay its author, or to make just one copy of a sound recording that someone has put up on a bulletin board. What harm could there be? However, in Cyberspace, where reproduction and dissemination are so easy and quick, even one unauthorized reproduction -- onto a server for instance -- can have a substantial ripple effect that could even supplant the market for legitimate copies of the work. Just think what happens to the shareware author's expectation of a profit or the sales of a commercial sound recording if ten thousand individuals make such seemingly harmless personal copies.

B. COPYRIGHT AWARENESS CAMPAIGN

To address these concerns about education, the Working Group has initiated the Copyright Awareness Campaign. The kick-off meeting of the Campaign, which was held in March 1995, brought together educator associations, media organizations, copyright owners, the Copyright Office, and the Departments of Education and Commerce to begin this important discussion on how to educate the public on the importance of copyright in the NII. All of the participants agree that this Campaign is critical to the successful development of the NII, and many suggestions were offered on how best to educate the public.

The participants in the Campaign generally agreed that education of the public about intellectual property has a number of aspects. First, public awareness needs to be

raised about the existence of copyright law and the protections that it provides. Second, model curricula need to be developed so that state and local educators (and other organizations) have available to them comprehensive material about intellectual property that could be incorporated into all levels of education. Third, the public needs quick access to up-to-date information on intellectual property rights, and guidance as to where the information is located.

The first goal -- raising public awareness of the existence of intellectual property -- is a broad goal to which anyone may contribute. The Campaign's participants felt that, at present, few people understand what intellectual property is, or the types of intellectual property protection available. Generally, owners of intellectual property should strive to get the word out about intellectual property, whether individually or collectively, so that the public becomes more familiar with the concept. As people begin to associate intellectual property with public benefits, they will be more receptive to learning about and respecting intellectual property.

The second goal is to develop educational curricula about intellectual property -- especially with regard to its role in the NII. In addition to heightening public awareness, such curricula would reinforce the important role of intellectual property as an incentive to create and innovate, provide guidance as to legal use of protected works, and dispel the notion that intellectual property is a barrier to the public availability of works. The substantive components of the curricula may be broken down further into a number of elements. Initially, respect for copyright protection needs to be highlighted -- intellectual property needs to become a "household word." This element will work in conjunction with the goal of public awareness, but should focus more on the importance of intellectual property, and not simply on its existence. Second, a comprehensive program needs to be developed to target different educational levels. Not only must a curricula be

developed and made available for all educational levels, but also a methodology must be established for the continual reinforcement of the importance of intellectual property throughout the lifelong learning of every NII user.

A number of initiatives that are presently underway in both the public and private sectors were reviewed during the kick-off meeting of the Copyright Awareness Campaign. While each of these initiatives is useful in its targeting of a specific audience, a more coordinated effort may be more successful. Ideally, copyright owners, users, and educators will seek to develop broad-based "model curricula" that incorporate all of the substantive issues that are required for useful education about copyright. Such model curricula could then be disseminated to state school boards, private schools, libraries, community centers and other educational institutions for incorporation into their programs.

In considering such model curricula, the Campaign's participants noted that a number of factors should be considered, including the age of the persons being taught, their level of experience with the NII, the specific applications for which they use the NII, and their previous exposure to intellectual property laws. Certain core concepts should be introduced at the elementary school level -- at least during initial instructions on computers or the Internet, but perhaps even before such instruction. For example, the concepts of property and ownership are easily explained to children because they can relate to the underlying notions of property -- what is "mine" versus what is "not mine," just as they do for a jacket, a ball, or a pencil. At the same time that children learn basic civics, such as asking permission to use somebody else's pencil, they should also learn that works on a computer system may also be property that belongs to someone else. Therefore, they should learn what one participant refers to as "electronic citizenship," including how to determine the owner of a work, and how to go about asking for permission to use it. Similarly, they should learn that the taking

of someone else's property, including copyrighted works, without their permission is not right. Additionally, as noted previously, users will also be creators of copyrighted works, and therefore should know what their rights are and that they may expect those rights to be respected by others.

Other concepts of intellectual property should perhaps be introduced later. Soon after learning about property and ownership, students should learn more about the various forms of intellectual property, and why their protection is so important. Students should learn about the many valuable technologies that would not have been developed without protections of the patent system to recover costly research and development investments. Similarly, students should be aware of the substantial economic contributions of the industries that rely on copyright protection -- including the computer, entertainment, publishing, and broadcasting industries. In addition, people of all ages should recognize that millions of U.S. workers are employed by industries that rely heavily on intellectual property protection, and that intellectual property rights are truly a matter of national interest.

Additional concepts regarding copyright may be explored throughout a person's education. For example, the economic rationale for granting authors and inventors exclusive property rights in their creative efforts for a limited period of time in order to foster creativity and innovation might fit neatly in a high school economics course. Similarly, a number of topics might be explored during social studies or history classes including the constitutional roots of patent and copyright law, the nature of a governmental grant of a property right, or the role of the copyright and patent systems in fostering the present day information and communications revolution. Business courses could discuss the concepts of licensing intellectual property rights, the use of intellectual property as a marketing device, the concept of intellectual property as a corporate asset, and the trademark concept of good will. At the college level, concepts of intellectual property could be

included in many programs. For example, basic patent and trade secret law could be taught in all science and engineering programs, while copyright law could be included in any instruction dealing with literature, art or computer science.

Along with the initial consideration of the substantive component of *what* should be taught, a procedural component must also be determined. This component actually considers a number of related questions -- *when* should a specific topic be taught, and in what order as related to other topics; *how* should the specific topic be presented, including general tone; and *what form* of communication is most effective given the nature of the topic and the audience involved. The participants at the kick-off meeting discussed a number of factors that should be considered in making these determinations.

Determining when a topic should be presented depends on its degree of complexity. As noted earlier, basic concepts of intellectual property -- such as ownership -- are easily taught at a young age. More complicated topics, such as the exclusive rights of intellectual property owners and fair use, would likely be reserved for later study. However, complexity of the subject matter alone is not the only consideration. A complex topic can be simplified for earlier ages, leaving more detailed instruction for future study. For example, the basic notion of ownership may be introduced at an early age, but should also be reinforced when discussing exclusive rights, licensing, and in other related topics throughout a person's education. Thus, the answer to the question of when a given topic should be taught may be "always," with increasing degrees of complexity so that students are not overwhelmed by a subject that they are too young to understand.

A slightly different factor to consider is how a particular topic should be presented. A point raised in the first meeting of the Copyright Awareness Campaign was that copyright education should not be a series of "thou

shall nots." Instead, education should carry a "just say yes" message -- that works may be accessed and used, and that seeking permission is not an insurmountable barrier. The prohibitions against unauthorized use of intellectual property should be cast in terms of a right to control one's property. The public should also understand that copyright protection is specifically prescribed for a limited period of time, after which the underlying work becomes dedicated to the public. In addition, users should recognize that as on-line licensing becomes more readily available for accessing protected works on the NII, the delays in seeking authorization from the property owner will be minimized.

Another problem with the determination of how a topic should be presented is ensuring accurate and consistent information. In order for the public to respect and participate in educational programs, they must be able to rely on the information they receive. As many private organizations have already developed their own educational materials -- often directed at specific audiences and applications -- confusion may result on the part of the layperson based on perceived "mixed signals" of what is and is not permitted. Therefore, as curricula and other educational programs are developed, clear and consistent information must be ensured in order to avoid confusion and contempt. A system for "peer review" of educational material by impartial editors may aid in presenting accurate and consistent information.

The third factor, and perhaps most important, is the form of communication used to deliver an education program. Clearly, audiences respond differently to varied methods of communication. Numerous methods have been suggested through the Copyright Awareness Campaign for getting the message across including: classroom learning; video instruction; distance learning; broadcast television and radio; satellite teleconferencing; cable television; on-line services; billboards; books, magazines, and other publications; music; and art. Combinations of these methods in copyright workshops will reinforce key concepts

and help tie information together. Many of these forms of communication are already being used to educate the public about copyright law -- and the producers of these materials should work together to determine which methods are most effective for a given audience. The sharing of such information will go a long way toward reducing duplication of efforts -- especially those that are less effective.

Educators and media organizations can have tremendous impact on the procedural component because they possess the expertise required to determine whether a particular educational message is being effectively communicated. Through testing procedures, educators may determine whether certain concepts are comprehended by students. Similarly, through marketing surveys, media organizations can determine the forms of communication that are most effective for particular audiences. These methods of evaluation are already available for other educational and communication materials, thus requiring only minor adaptation for the evaluation of an intellectual property curricula.

The final goal of the Campaign is the establishment of a system that provides the public with easy access to accurate and up-to-date information on copyright, including guidance on when and how to get authorization to use copyrighted works. While educational programs and curricula may raise public awareness, they cannot teach the public every facet of the law as it applies to new and previously unencountered situations. People soon will become frustrated with such programs if they cannot get quick answers to their questions regarding compliance with copyright law. In order for NII users to comply with the law, they need to know where and how to receive additional information on copyright as they encounter new situations on the NII.

A number of methods could be used to provide this service. A directory of attorneys having expertise in a particular field, such as copyright issues dealing with

educational or library applications, could be developed and maintained. Additionally, as was suggested in the Copyright Awareness Campaign, a package of copyright basics could be established on a World Wide Web home page for access by interested users. Similarly, a copyright information news group could be established on Usenet to keep users informed of where to go to get important copyright information. The U.S. Copyright Office provides on-line access to its circulars, announcements, and regulations (proposed and final), as well as information regarding registration information (original and renewal), and other recorded documents. Other private organizations also provide such information and counseling, often for nominal charges.

IV. RECOMMENDATIONS

A. COPYRIGHT

It is difficult for intellectual property laws to keep pace with technology. When technological advances cause ambiguity in the law, courts look to the law's underlying purposes to resolve that ambiguity. However, when technology gets too far ahead of the law, and it becomes difficult and awkward to adapt the specific statutory provisions to comport with the law's principles, it is time for reevaluation and change. "Even though the 1976 Copyright Act was carefully drafted to be flexible enough to be applied to future innovations, technology has a habit of outstripping even the most flexible statutes."[529]

> From its beginning, the law of Copyright has developed in response to significant changes in technology. Indeed, it was the invention of a new form of copying equipment -- the printing press -- that gave rise to the original need for copyright protection. Repeatedly, as new developments have occurred in this country, it has been the Congress that has fashioned the new rules that new technology made necessary.[530]

The Working Group has examined the adequacy of the Copyright Act to cope with the pace of technological changes. In applying the law to new uses, media and technology, the issues presented vary. Certain issues merely require an explanation of the application of the current law, and clearly are appropriately covered. Others present rights or limitations that clearly fit within the spirit of the law but the letter of the law is in need of clarification to avoid

---

[529] H.R. REP. NO. 101-735, 101st Cong., 2d Sess. 7 (1990), *reprinted in* 1990 U.S.C.C.A.N. 6935, 6938 (report accompanying legislation granting copyright owners of computer software an exclusive rental right).

[530] *Sony*, *supra* note 361, at 430-31.

uncertainty and unnecessary litigation. Still others need new solutions. Technology has altered the balance of the Copyright Act -- in some instances, in favor of copyright owners and in others, in favor of users. The goal of these recommendations is to accommodate and adapt the law to technological change so that the intended balance is maintained and the Constitutional purpose is served.[531]

While it is not advisable to propose amendment of the law with every technological step forward, neither is it appropriate to blindly cling to the status quo when the market has been altered.

> Sound policy, as well as history, supports our consistent deference to Congress when major technological innovations alter the market for copyrighted materials. Congress has the constitutional authority and the institutional ability to accommodate fully the varied permutations of competing interests that are inevitably implicated by such new technology.[532]

Throughout more than 200 years of history, with periodic amendment, United States law has provided the necessary copyright protection for the betterment of our society. The Copyright Act is fundamentally adequate and effective. In a few areas, however, it needs to be amended to take proper account of the current technology. The coat is getting a little tight.[533] There is no need for a new one, but the old one needs a few alterations.

---

531 *See* discussion of the Constitutional purpose of copyright *supra* pp. 19-23.

532 *Sony*, *supra* note 361, at 431.

533 *See supra* p. 13.

1. THE TRANSMISSION OF COPIES AND PHONORECORDS

a. THE DISTRIBUTION RIGHT

The Copyright Act gives a copyright owner the exclusive right "to distribute copies or phonorecords of the copyrighted work" to the public. It is not clear under the current law that a transmission can constitute a distribution of copies or phonorecords of a work.[534] Yet, in the world of high-speed, communications systems, it is possible to transmit a copy of a work from one location to another. This may be the case, for instance, when a computer program is transmitted from one computer to ten other computers. When the transmission is complete, the original copy typically remains in the transmitting computer and a copy resides in the memory of, or in storage devices associated with, each of the other computers.[535] The transmission results essentially in the distribution of ten copies of the work. However, the extent of the distribution right under the present law may be somewhat uncertain and subject to challenge. Therefore, the Working Group recommends that the Copyright Act be amended to expressly recognize that copies or phonorecords of works can be distributed to the public by transmission, and that such transmissions fall within the exclusive distribution right of the copyright owner.

The proposed amendment does not create a new right. It is an express recognition that, as a result of technological developments, the distribution right can be exercised by

---

[534] *See* discussion *supra* pp. 70-73.

[535] In contrast, a "standard" distribution of a copy necessarily divests the distributor of his copy. In the case of a distribution by transmission, the distributor generally retains his copy of the work and a reproduction is distributed.

means of transmission -- just as the reproduction, public performance and public display rights may be.[536]

It is argued by some that the existing right of distribution encompasses transmissions of copies and that no amendment is necessary. Indeed, the distribution right, as set forth in Section 106(3) of the Copyright Act, can be -- and, in at least one case, has been -- interpreted to include transmissions which distribute copies of works to, for example, the memories of computers. Transmission, it is argued, is logically and legally a means of distribution. The Working Group has no argument with such an interpretation; it properly conforms to the intent of the distribution right and, we believe, is correct from both a practical and legal standpoint.

Others suggest that amendment of the law may not be necessary because even if the distribution right does not cover the distribution of reproductions by transmission, the reproduction right is clearly implicated and that will protect the copyright owner. However, the fact that more than one right may be involved in infringing activity does not, and should not, mean that only one right should apply.[537] Each

---

[536] It has been suggested that recognition of distribution by transmission may diminish the public performance right. However, if a work is publicly performed by transmission, then there has been a public performance -- whether or not the distribution right is or is not also involved. The fact that some transmissions may constitute a reproduction and distribution of copies to the public does not mean that transmissions that constitute public performances are not public performances. The scope of the public performance right is not diminished by the recognition that a transmission may fall within the scope of the distribution right. If a copy of a motion picture is transmitted to a computer's memory, for instance, and in the process, the sounds are capable of being heard and the images viewed as they are received in memory, then the public performance right may well be implicated as well. *See* 17 U.S.C. § 101 (1988) (definition of "perform").

[537] The exclusive rights, "which comprise the so-called 'bundle of rights' that is a copyright, are cumulative and may overlap in some cases. Each of the five enumerated rights may be subdivided indefinitely, and . . . each subdivision of an exclusive right may be owned and enforced separately." HOUSE REPORT at 61, *reprinted in* 1976 U.S.C.C.A.N. 5674.

of the exclusive rights is distinct and separately alienable and different parties may be responsible for infringements or licensing of different rights -- and different rights may be owned by different people.[538] Because transmissions of copies may constitute both a reproduction and a distribution of a work, transmissions of copies should not constitute the exercise of just one of those rights. Indeed, those licensed only to reproduce a work should not be entitled to also distribute the work through transmission -- thereby displacing the market for the copyright owner or his distribution licensee.

> Infringement takes place when any one of the rights is violated: where, for example, a printer reproduces copies without selling them or a retailer sells copies without having anything to do with their reproduction.[539]

Clearly, not all transmissions of copies of copyrighted works will fall within the copyright owner's exclusive distribution right. Moreover, even if a transmission of a copy falls within the scope of the right, it is not necessarily unlawful. First, the distribution must be a distribution *to the public*. The case law interpreting "publication" provides guidance as to what constitutes distribution to the public.[540] If a distribution would not constitute a publication of the work, then it would likely be found to be outside the scope of the copyright owner's distribution right. Therefore, the transmission of a copyrighted work from one person to another in a private e-mail message would not constitute a distribution to the public.[541] Second, all of the limitations,

---

538 *See* discussion *supra* pp. 45-47.

539 HOUSE REPORT at 61, *reprinted in* 1976 U.S.C.C.A.N. 5674.

540 *See* discussion *supra* pp. 28-32. The term "public" as used in connection with the distribution right is not coincident with the meaning assigned to that term in connection with the public performance or public display right.

541 If copies of works are offered to the public -- even though they

exemptions and defenses that currently apply to the distribution right and allow users to distribute certain copies to the public or to distribute copies under certain circumstances will continue to apply. For example, any exercise of one of the exclusive rights may be fair use -- including the reproduction and distribution of copies by transmission.

Some are of the view that the current language of the Act does not encompass distribution by transmission. They argue that the proposed amendment expands the copyright owner's rights without a concomitant expansion of the limitations on those rights. However, since transmissions of copies already clearly implicate the reproduction right, it is misleading to suggest that the proposed amendment of the distribution right would expand the copyright owner's rights into an arena previously unprotected. Further, even if the premise is correct (that the amendment expands the distribution right), the conclusion that the limitations of that right are not similarly expanded is invalid. The limitations on the right -- which place certain distributions to the public outside the scope of the copyright owner's right -- would necessarily expand to also place similar distributions by means of transmission outside the scope of the right.

Nevertheless, there is no reason to treat works that are distributed in copies to the public by means of transmission differently than works distributed in copies to the public by other, more conventional means.[542] Copies distributed via transmission are as tangible as any distributed over the counter or through the mail. Through each method of distribution, the consumer receives a tangible copy of the work.

---

may be distributed one copy at a time -- it would likely constitute distribution to the public. *See* 17 U.S.C. § 101 (1988) (definition of "publication"); 1 NIMMER ON COPYRIGHT § 4.04 at 4-20.

[542] In the future, transmission may become the conventional means of distribution.

When the public performance right was initially granted, it was thought to encompass only "live," in-person performances. When it became clear that copyrighted works could be publicly performed by other means -- *i.e.*, broadcast and, later, cable transmissions -- the law was clarified. The same is true today with respect to the distribution right. Transmission is a means of distribution of copies, just as it can be a means of performance. However, the differences of opinion summarized above underscore the need for clarification and legal certainty. The costs and risks of litigation to define more clearly the right -- and the time achieving such clarity would take -- would discourage and delay use of the NII.

b. Related Definitional Amendments

The Working Group also recommends other related amendments to two definitions.

To "Transmit"

As explained above, under current technology, a copy of a work may be transmitted. However, the Copyright Act defines only what it is to transmit a performance or display of a work. Therefore, the Working Group recommends that the definition of "transmit" in Section 101 of the Copyright Act be amended to include a definition of a transmission of a reproduction.[543]

How to delineate between these types of transmissions is a difficult issue to resolve. The transmissions themselves hold no clues; one type often looks the same as the other during the transmission. If the transmitter intends to transmit a performance of the work, as well as to distribute a reproduction of it -- or if the receiver is able to hear or see

---

[543] Under the proposed definition, to transmit a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent.

a performance of the work in the course of receiving a copy of it -- what rights are exercised by the transmission? A transmission could be a transmission of a reproduction or a performance or both. The resolution of these issues should rest upon the specific facts of the case. Such issues will typically be clarified between rightsholders and users in appropriate license arrangements. If confusion or disagreement exists in a specific context, the courts -- rather than Congress -- are in the better position to determine which, if any, exclusive rights are involved in a particular transmission. Courts regularly make such determinations in other cases where rights overlap.[544]

"PUBLICATION"

The legislative history of the Copyright Act makes clear that "any form of dissemination in which a material object does not *change hands* . . . is not a publication no matter how many people are exposed to the work."[545] Thus, a work that is only displayed or performed via the NII would not be considered published, no matter how many people have access to the display or performance, because a material object -- a copy of the work -- does not change hands.[546] However, in the case of transmissions of

---

[544] To delineate between those transmissions that are communications of performances or displays and those that are distributions of reproductions, one may look at both ends of the transmission. Did the transmitter intend to communicate a performance or display of the work or, rather, to distribute a reproduction of the work? Did the receiver simply hear or see the work or rather/also receive a copy of it? Did the receiver simply receive a copy or was it possible for her to hear or see it as well? License rates and terms will assist in determining the intent of the parties.

[545] *See* HOUSE REPORT at 138 (emphasis added), *reprinted in* 1976 U.S.C.C.A.N. 5754.

[546] *See* discussion *supra* pp. 28-32. The House Report also states, however, that the definition was intended to clarify that the offering of copies or phonorecords to a group of, for instance, wholesalers, broadcasters or motion picture theater operators constitutes publication if the purpose of the offering is "further distribution, public performance, or display." *See* HOUSE REPORT at 138, *reprinted in* 1976 U.S.C.C.A.N. 5754. Therefore, if an author offers copies

reproductions, the recipients of the transmissions receive copies of the work (*i.e.*, copies of the work have been distributed) -- although they may not have "changed hands" in the literal sense.

Whether the transmission of copies of works is clearly within the scope of the distribution right is also a problem with respect to the act of publication by the transmission of copies. Indeed, the definition of "publication" incorporates the language used to describe the distribution right, which the Working Group's proposal amends.[547] Publication largely turns on whether the work has been distributed to the public. Thus, if copies of a work may be distributed to the public by transmission, then a work may be published by the transmission of copies to the public. Therefore, consistent with the proposed amendment of the distribution right, the Working Group recommends that the definition of "publication" in Section 101 of the Copyright Act be amended to recognize that a work may be published through the distribution of copies of the work to the public by transmission.[548]

The effects under the law of a work being considered published (rather than unpublished) generally are negative from the viewpoint of the copyright owner. Published works, for example: (1) must be deposited in the Library of Congress; (2) are subject to more limitations on the exclusive rights, including a broader application of fair use;

---

to bulletin board system operators or others for further distribution, public performance or public display on a computer network, publication may occur.

[547] Under the current law, the distribution right is identified as the right "to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending." *See* 17 U.S.C. § 106(3) (1988). Publication is "the distribution of copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, or by rental, lease, or lending." *See* 17 U.S.C. § 101 (1988) (part of definition of "publication").

[548] Under the law of the United Kingdom, making a work available to the public by means of an electronic retrieval system constitutes publication. *See* Copyright, Designs and Patents Act of 1988, § 175(1)(b).

(3) must meet certain author nationality or domicile requirements to be eligible for protection; and (4) must bear a copyright notice if published before March 1, 1989.[549] However, the designation of works distributed to the public by transmission as published will be important in the case of works distributed first -- or solely -- on-line. The deposit requirement will aid in the preservation of those works, which otherwise might be updated or revised on-line, destroying -- or at least obscuring -- the original published versions. This may be particularly critical in preserving the scholarly and scientific record.[550]

Just as not all distributions of copies by transmission will constitute distributions to the public (and fall within the distribution right), not all transmissions of copies will constitute publication. Private e-mail messages would not be regarded as published.[551] Neither would other restricted transmissions of copies, such as those in a typical corporate setting, where transmissions of copies within the company computer network are restricted as to further distribution.[552] However, as in the print environment, the distribution of copies to a small group under circumstances where further distribution is authorized would publish the work.[553]

---

549 *See supra* notes 68-83 and accompanying text.

550 In the print domain, prior published editions are more easily and generally available for reference, partially because of the deposit requirement, but primarily because subsequent versions do not override the originals -- which is possible in the on-line environment.

551 *See* discussion *supra* pp. 28-32.

552 *See* discussion of the doctrine of limited publication *supra* pp. 31-32.

553 *See White v. Kimmell*, 193 F.2d 744 (9th Cir. 1952) (unrestricted circulation of 200 copies of a manuscript to friends and acquaintances published the work); *Continental Casualty Co. v. Beardsley*, 253 F.2d 702 (2d Cir. 1958) (distribution of approximately 100 sets of forms to corporate officers and surety companies for possible purchase of more constituted publication).

c. THE IMPORTATION PROVISIONS

The Working Group also recommends that the prohibitions on importation be amended to reflect the fact that, just as copies of copyrighted works can be distributed by transmission in the United States, they can also be imported into the U.S. by transmission. If an infringing literary work, for instance, were physically shipped into the U.S. in the form of a paper copy, a CD-ROM disk or even stored on a memory chip, then it would be an infringing importation if the statutory conditions existed.[554]

Cross-border transmission of copies of copyrighted works should be subject to the same restrictions as shipping them by airmail. Just as the distribution of copies of a copyrighted work is no less a distribution than the distribution of copies by mail, the international transmission of copies of copyrighted works is no less an importation than the importation by airmail.

Although we recognize that the U.S. Customs Service cannot, for all practical purposes, enforce a prohibition on importation by transmission, given the global dimensions of the information infrastructure of the future, it is important that copyright owners have the other remedies for infringements of this type available to them. Therefore, the Working Group recommends that Section 602 of the Copyright Act be amended to include importation by carriage or shipping of copies as well as by transmission of them.

2. PUBLIC PERFORMANCE RIGHT FOR SOUND RECORDINGS

Transmissions of sound recordings will certainly supplement and may eventually replace the current forms of distribution of phonorecords. In the very near future, consumers will be able to receive digital transmissions of

---

554 *See* discussion of the importation right *supra* pp. 107-09.

sound recordings on demand -- for performance in the home or for downloading -- from the so-called "celestial jukebox." The legal nature of such transmissions -- whether they are performances or distributions -- has been widely debated. As discussed above, the Working Group recommends that Section 106 of the Copyright Act be amended to make clear that copies or phonorecords can be distributed by transmission. However, many of these transmissions will clearly constitute exercise of the public performance right -- a right which the Copyright Act fails to grant to copyright owners of sound recordings.[555]

The lack of a public performance right in sound recordings under U.S. law is an historical anomaly that does not have a strong policy justification -- and certainly not a legal one. Sound recordings are the only copyrighted works that are capable of being performed that are not granted that right. Therefore, for example, to transmit a performance of a sound recording without infringement liability, an audio-on-demand service acting as a "celestial jukebox" must obtain a license from, and pay a royalty to, the copyright owner of the underlying musical work (*i.e.*, the person or entity who owns the rights in the notes and the lyrics), but it does not have to obtain permission from, or pay a license fee to, the copyright owner of the sound recording or the performer. The Working Group believes that this inequity should be rectified.

Public performance rights are granted in many foreign markets. Due to the lack of a performance right in the United States, U.S. performers and record companies are denied their fair share of foreign royalty pools for the public

---

[555] Some transmissions that clearly constitute public performances may, in effect, substitute for distributions in the future. If consumers are offered a service through which they can receive a performance of any sound recording at any time, they may stop buying phonorecords. The market for distributed phonorecords may shrink to include only the providers of that service to consumers.

performance of U.S. sound recordings in some countries and are in danger of losing access to their share in others.

By granting performance rights in sound recordings, the United States will treat the creators of these culturally and economically important copyrighted works the same as all other works capable of being publicly performed. This legislation will provide increased incentive for the creators of sound recordings to produce and disseminate more works, thereby expanding consumer choice. In addition, the enactment of these rights will strengthen the hand of Government negotiators and private advocates seeking a fair share of foreign royalty pools.

Some argue that copyright owners of sound recordings should not be granted a public performance right because they derive some indirect benefit from the public performance of their works. This argument is based on the theory that the public performance of a work increases the sales of reproductions of that work. Therefore, the copyright owner gets an indirect benefit (*i.e.*, increased sales of reproductions) from the so-called "free advertising" that public performances provide. This, in fact, may be true in some cases. However, it is not a valid policy argument against providing sound recording copyright owners with the full panoply of exclusive rights other copyright owners enjoy.

The exercise of one right often increases the value of the exercise of another right, but we do not restrict any other copyright owners from exercising *all* of his or her rights. For instance:

- The copyright owner of the musical composition embodied in a sound recording is paid both when recordings of the composition are sold *and* when the composition is publicly performed -- even though the public performance might increase the number of records sold and thus benefit the copyright owner.

- Serial excerpts from a novel that are published in a magazine might increase sales of the book, but the magazine nonetheless must obtain permission from the author of the book.

- The copyright owner of that novel may also increase his book sales when a motion picture based on the novel is released. However, no one suggests that the motion picture company should not have to pay the copyright owner of the novel for the right to turn it into a movie, just because the movie might indirectly benefit the copyright owner.

The copyright owners of sound recordings should be able to decide for themselves, as do all other copyright owners, if "free advertising" is sufficient compensation for the use of their works. If the users' arguments regarding the benefit copyright owners derive from the public performance of their sound recordings are correct, the users should be able to negotiate a very low rate for a license to do so.

It also has been argued that the copyright owners of sound recordings should not be granted the "exclusive" right that all other copyright owners enjoy, but instead be subject to a compulsory license, so that they cannot act as a "gatekeeper" to the licensing of performances of the musical works embodied in sound recordings. It is asserted that while a copyright owner of a sound recording with an exclusive public performance right could block the performance of the musical work by denying a license to publicly perform the sound recording, the copyright owner of the musical work could not. This argument is based on the incorrect assumption that copyright owners of musical works are not granted exclusive public performance rights. Section 106(4) of the Copyright Act clearly grants exclusive rights to the copyright owners of musical works, and, while virtually all music performance licensing is handled for those copyright owners by performing rights societies on a nonexclusive basis, the copyright owners could license their

performance rights on an exclusive basis if they chose to do so.[556]

Two bills introduced in the 104th Congress would grant a very limited performance right in sound recordings.[557] A *full* public performance right -- *particularly* with respect to all *digital* transmissions -- is warranted. There is no just reason to afford a lower level of protection to one class of creative artists. Further, *any* special limitations on this right weakens our position internationally. The digital communications revolution -- the creation of advanced information infrastructures -- is erasing the distinctions among different categories of protected works and the uses made of them.

3. LIBRARY EXEMPTIONS

The copyright law carefully balances the rights of copyright owners with the legitimate needs of users. Nowhere is this balancing more apparent than in the exemptions that are intended to permit libraries reasonable use of copyrighted works to serve the legitimate demands of their patrons.

Many have expressed concern that the special exemptions for libraries in Section 108 of the Copyright Act are no longer relevant in the digital era. Libraries, of course, may make fair use of any copyrighted works pursuant to the provisions of Section 107.[558] Section 108, however, provides additional exemptions specifically for libraries and archives On the one hand, there are those who

---

[556] If the copyright owners of sound recordings abused the exclusivity that the law should provide, the solution would lie in the enforcement of the antitrust laws -- where the music licensing problems have been addressed -- not in the reduction of rights under the Copyright Act.

[557] *See* S. 227, 104th Cong., 1st Sess. (1995); H.R. 1506, 104th Cong., 1st Sess. (1995).

[558] *See* discussion *supra* pp. 73-82.

believe that since licensing of transactions of works in digital form will be a feature of the digital distribution systems of the future, there is no need for library exceptions. Each copying transaction will be cheap and libraries can simply pay for all of the copying in which they engage. On the other hand, there are those who believe that unrestricted copying in libraries should be the rule, without the special conditions and limitations set forth in Section 108.

The Working Group agrees with neither those who would delete the exemptions for library copying nor those who would permit wholesale copying in libraries. It believes that there is an important public interest in exempting certain library uses of copyrighted works and that the public interest is no less important -- and, indeed, may be more important -- when such use involves digital technology. It also believes that there is an equally important interest in recognizing the legitimate interests of copyright owners in licensing uses of their works through voluntary systems.

Therefore, notwithstanding the legislative history of the 1976 Act which clearly intended that Section 108 did not permit digital reproduction,[559] the Working Group believes that it is important to expand the exemption so that digital copying by libraries and archives is permitted under certain circumstances. In supporting this departure from the generally accepted view of the scope and intention of Section 108, the Working Group believes that the law must preserve the role of libraries and archives in the digital era.

---

[559] The legislative history makes it clear that digital uses are generally not encompassed by Section 108: "Under this exemption, for example, a repository could make photocopies of manuscripts by microfilm or electrostatic process, but *could not reproduce the work in 'machine-readable' language* for storage in an information system." HOUSE REPORT at 75, *reprinted in* 1976 U.S.C.C.A.N. 5689; Senate Report at 67 (emphasis added). The Senate Report also speaks precisely of "the *photocopying* needs of . . . multi-county regional systems." *Id.* at 70 (emphasis added).

Libraries and archives are the trustees of our collective knowledge and must be able to make use of digital technology to preserve the Nation's heritage and scholarship. Therefore, the Working Group recommends that the library exemptions be amended: (1) to accommodate the reality of the computerized library by allowing the preparation of three copies of works in digital form, with no more than one copy in use at any time (while the others are archived); (2) to recognize that the use of a copyright notice on a published copy of a work is no longer mandatory; and (3) to authorize the making of digital copies for purposes of preservation.[560]

4. REPRODUCTION FOR THE VISUALLY IMPAIRED

The NII offers real opportunities to many visually impaired people to participate in learning, communication and discourse to a greater extent than when only conventional modes of communication are available. With the aid of software and computer equipment that is widely available, people now have the capacity to view text on CD-ROM on screen in a "large-type" format even if the publisher did not include such a feature, but the publication and distribution of large-type editions remains very important. To ensure fair access to all manner of printed materials, it is necessary to amend the copyright law.

The laws of many Berne Convention countries contain express exemptions from liability for the unauthorized manufacture and distribution of Braille or other editions designed to assist the visually impaired.[561] The Working

---

[560] The Working Group believes that replacement copies may be digital in nature, and may be made under this provision only when an unused replacement is not available in either digital or analog form.

[561] *See, e.g.*, Section 53D of the Australian law (privilege conditioned on copyright owner's abstention from market for Braille edition); Section 18 of the Finnish law (Braille editions and talking books may be manufactured "for use by lending libraries for blind persons"); Section 80 of the Portuguese law (Braille

Group believes that similar provisions should be included in the Copyright Act, and has modeled its proposal on the Australian law, so as to maintain private rights while recognizing certain readers' special needs. The proposed amendment would provide an exemption for non-profit organizations to reproduce and distribute to the visually impaired -- at cost -- Braille, large type, audio or other editions of previously published literary works in forms intended to be perceived by the visually impaired, provided that the owner of the exclusive right to distribute the work in the United States has not entered the market for such editions during the first year following first publication of the work.[562]

5. CRIMINAL OFFENSES

Although the Copyright Act provides criminal penalties when the infringement is willful and is for purposes of commercial advantage or private financial gain,[563] the dismissal of the criminal charges in *United States v. LaMacchia* demonstrates a serious lacuna in the criminal copyright provisions: it does not now reach even the most wanton and malicious large-scale endeavors to copy and provide on the NII limitless numbers of unauthorized copies of valuable copyrighted works unless the copier seeks profits.[564] Since there is virtually no cost to the infringer, certain individuals are willing to make such copies (or assist others in making them) for reasons other than monetary reward. For example, someone who believes that all works

---

editions may be manufactured if not for profit).

[562] The visually impaired were the only users with a disability who provided comments or testimony concerning a need for a narrow exemption to ensure the availability of literary works in a usable form. By its recommendation of such an exemption for the visually impaired, the Working Group does not intend to dismiss the possibility that other disabled users may have needs of which it has not been made aware and, therefore, has not considered.

[563] *See* discussion of criminal offenses *supra* pp. 126-28.

[564] *See* discussion of the *LaMacchia* case *supra* p. 127.

should be free in Cyberspace can easily make and distribute thousands of copies of a protected work and may have no desire for commercial advantage or private financial gain.

The Working Group agrees with the *LaMacchia* court:

> Criminal as well as civil penalties should probably attach to willful, multiple infringements of copyrighted software even absent a commercial motive on the part of the infringer. One could envision ways that the copyright law could be modified to permit such prosecution. But, "[i]t is the legislature, not the Court which is to define a crime, and ordain its punishment."

Therefore, the Working Group generally supports the amendments to the copyright law and the criminal law (which sets out sanctions for criminal copyright violations) set forth in S. 1122, introduced in the 104th Congress by Senators Leahy and Feingold following consultations with the Justice Department. The bill would make it a criminal offense to willfully infringe a copyright by reproducing or distributing copies with a retail value of $5,000 or more. By setting a monetary threshold and requiring willfulness, the bill ensures that merely casual or careless conduct resulting in distribution of only a few copies will not be subject to criminal prosecution and that criminal charges will not be brought unless there is a significant level of harm to the copyright owner's rights.[565]

---

[565] As noted earlier, the idea/expression dichotomy and the limitations on the exclusive rights, including fair use, address First Amendment concerns. *See supra* pp. 32-35, 73-100 and note 227. *See also Harper & Row, Publishers, Inc. v. Nation Enterprises*, 471 U.S. 539, 560 (1985) ("First Amendment protections [are] embodied in the [Copyright] Act's distinction between copyrightable expression and uncopyrightable facts and ideas, and the latitude for scholarship and comment traditionally afforded by fair use").

6. TECHNOLOGICAL PROTECTION

The ease of infringement and the difficulty of detection and enforcement will cause copyright owners to look to technology, as well as the law, for protection of their works. However, it is clear that technology can be used to defeat any protection that technology may provide. The Working Group finds that legal protection alone will not be adequate to provide incentive to authors to create and to disseminate works to the public. Similarly, technological protection likely will not be effective unless the law also provides some protection for the technological processes and systems used to prevent or restrict unauthorized uses of copyrighted works.

The Working Group finds that prohibition of devices, products, components and services that defeat technological methods of preventing unauthorized use is in the public interest and furthers the Constitutional purpose of copyright laws. Consumers of copyrighted works pay for the acts of infringers; copyright owners have suggested that the price of legitimate copies of copyrighted works may be higher due to infringement losses suffered by copyright owners. The public will also have access to more copyrighted works via the NII if they are not vulnerable to the defeat of protection systems.

Therefore, the Working Group recommends that the Copyright Act be amended to include a new Chapter 12, which would include a provision to prohibit the importation, manufacture or distribution of any device, product or component incorporated into a device or product, or the provision of any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights under Section 106. The provision will not eliminate the risk that protection systems will be defeated, but it will reduce it.

The proposed prohibition is intended to assist copyright owners in the protection of their works.[566] The Working Group recognizes, however, that copyright owners may wish to use such systems to prevent the unauthorized reproduction, for instance, of their works, but may also wish to allow some users to deactivate the systems. Furthermore, certain uses of copyrighted works are not unlawful under the Copyright Act. Therefore, the proposed legislation prohibits only those devices or products, the primary purpose or effect of which is to circumvent such systems *without authority*. That authority may be granted by the copyright owner or by limitations on the copyright owner's rights under the Copyright Act.

It has been suggested that the prohibition is incompatible with fair use. First, the fair use doctrine does not require a copyright owner to allow or to facilitate unauthorized access or use of a work. Otherwise, copyright owners could not withhold works from publication; movie theatres could not charge admission or prevent audio or video recording; museums could not require entry fees or prohibit the taking of photographs. Indeed, if the provision of access and the ability to make fair use of copyrighted works were required of copyright owners -- or an affirmative right of the public -- even passwords for access to computer databases would be considered illegal. Second, if the circumvention device is primarily intended and used for legal purposes, such as fair use, the device would *not* violate the provision, because a device with such purposes and effects would fall under the "authorized by law" exemption.

Concern has also been expressed with regard to the ability to defeat technological protection for copies of works not protected by copyright law, such as those whose term of

---

[566] Legislation of a similar type has been introduced with respect to technological protection of audiovisual works. *See, e.g.*, S. 1096, 102d Cong., 1st Sess., 137 Cong. Rec. S. 6034 (1991); H.R. 3568, 101st Cong., 1st Sess., 135 Cong. Rec. H. 7924 (1989).

protection has expired or those in the public domain for other reasons (such as ineligibility for protection). However, devices whose primary purpose and effect is to defeat the protection for such works would *not* violate the provision. The proposed provision exempts all devices, products and services primarily intended and used for legal purposes, which would include the reproduction and distribution of copies of works in the public domain. Further, a protection system on copies of works in the public domain would not qualify with respect to such copies as a system which "prevents or inhibits the violation of any of the exclusive rights of the copyright owner under Section 106." Works in the public domain are not protected by copyright, and thus have no copyright owner or exclusive rights applicable to them. Finally, while technological protection may be applied to copies of works in the public domain, such protection attaches only to those particular copies -- not to the underlying work itself.[567]

It has also been suggested that the provision places an unwarranted burden on manufacturers. The proposed amendment would impose *no* requirement on manufacturers to accommodate any protection systems, such as those required in Chapter 10 of manufacturers of digital audio recording devices.[568] The provision would only prohibit the manufacture of circumvention devices.[569]

---

[567] Copies of the work in the marketplace free from copyright protection could be freely reproduced (and, in fact, the lower distribution costs of the NII may encourage increased availability of public domain works). Further, technological protection that restricts the ability to reproduce the work by technical means does not prevent reproduction by other means (such as quoting, manually copying, etc.).

[568] However, the Working Group does encourage the equipment manufacturing and copyright industries to work together on bilateral solutions for other types of recording devices and categories of works. In response to a request from Congressional leaders, representatives of the motion picture industry and the consumer electronics industry are presently drafting a joint legislative proposal addressing legal and technical measures pertaining to consumer recording of motion pictures. This proposal would set forth a technical means to be applied that would respect the legitimate commercial

Neither does the proposed amendment require copyright owners to use technological protection, or, if they do, to employ any particular type. Copyright owners should be free to determine what level or type of protection (if any) is appropriate for their works, taking into consideration cost and security needs, and different consumer and market preferences. Moreover, there is no evidence that one technological protection system could -- or should -- take care of all types of works.

Legislation of this type is not unprecedented. The Copyright Act already protects sound recordings and musical works by prohibiting the circumvention of any program or circuit that implements a serial copy management system or similar system included in digital audio recording devices and digital audio interface devices. Section 1002 provides:

> No person shall import, manufacture, or distribute any device, or offer or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent any program or circuit which implements, in whole or in part, a [serial copy management system or similar system].[570]

---

expectations of copyright owners and the reasonable and customary copying practices of consumers.

[569] Some have suggested that while manufacturers will surely know the primary *purpose* of the devices they produce, they may inadvertently find themselves liable for devices which they intended for legal purposes, but which have the incidental effect of circumventing copyright protection systems. For a manufacturer to find himself in this situation, the device would have to fail to be used primarily for the purpose for which it was sold, and be *primarily* used, to the surprise of its manufacturer, for defeating protection systems. It is likely that such a situation would occur rarely, if ever. (It would be self-defeating for copyright owners to begin using a protection system that an existing device could defeat.) However, the chapter contains an "innocent violation" provision for just such a case. A court would have the ability to reduce or eliminate altogether any damages for which the manufacturer would otherwise be liable, to avoid an unfair result but still protect the copyright owner.

[570] 17 U.S.C. § 1002(c) (Supp. V 1993).

The Communications Act includes a similar provision:

> Any person who manufactures, assembles, modifies, imports, exports, sells, or distributes any electronic, mechanical, or other device or equipment, knowing or having reason to know that the device or equipment is primarily of assistance in the unauthorized decryption of satellite cable programming, or is intended for any other activity prohibited by [Section 605(a)] shall be fined not more than $500,000 for each violation, or imprisoned for not more than 5 years for each violation, or both. For purposes of all penalties and remedies established for violations of this paragraph, the prohibited activity established herein as it applies to each such device shall be deemed a separate violation.[571]

Precedent for this type of legislation is also found in the international arena. The NAFTA requires each party to make it a criminal offense to "manufacture, import, sell, lease or otherwise make available a device or system that is primarily of assistance in decoding an encrypted program-carrying satellite signal without the authorization of the lawful distributor of such signal . . . ."[572] In 1988, the United Kingdom enacted legislation prohibiting the manufacture, distribution or sale of a device designed or adapted to circumvent copy-protection systems.[573]

---

571 47 U.S.C. § 605(e)(4) (1988).

572 *See* NAFTA, *supra* note 446, at art. 1707(a). The NAFTA also requires parties to make it a civil offense to "receive, in connection with commercial activities, or further distribute, an encrypted program-carrying satellite signal that has been decoded without the authorization of the lawful distributor of the signal or to engage in any activity prohibited under [the criminal provisions]." *See* NAFTA, *supra* note 446, at art. 1707(b).

573 *See* Copyright, Designs and Patents Act of 1988, Part VII, § 296.

7. COPYRIGHT MANAGEMENT INFORMATION

In the future, the copyright management information associated with a work -- such as the name of the copyright owner and the terms and conditions for uses of the work -- may be critical to the efficient operation and success of the NII. Copyright management information will serve as a kind of license plate for a work on the information superhighway, from which a user may obtain important information about the work. The accuracy of such information will be crucial to the ability of consumers to find and make authorized uses of copyrighted works on the NII. Reliable information will also facilitate efficient licensing and reduce transaction costs for licensable uses of copyrighted works (both fee-based and royalty-free).

The public should be protected from false information about who created the work, who owns rights in it, and what uses may be authorized by the copyright owner. Therefore, the Working Group recommends that the Copyright Act be amended to prohibit the provision, distribution or importation for distribution of copyright management information known to be false and the unauthorized removal or alteration of copyright management information. Under the proposed amendment, copyright management information is defined as the name and other identifying information of the author of a work, the name and other identifying information of the copyright owner, terms and conditions for uses of the work, and such other information as the Register of Copyrights may prescribe by regulation -- to provide adequate flexibility in the future.[574]

While the proposed amendment does not require copyright owners to provide copyright management

---

[574] Other information that may become important to the efficient operation of the NII includes the country of origin of the work, the year of creation or first publication, a description of the work, the name and other identifying information of licensees and standardized codes.

information, it does require that when such information is included, it be accurate. However, the Working Group encourages copyright owners to include the information to enable consumers to more easily find and make authorized uses of copyrighted works. Nor does it specify standardized formats or content, although private sector initiatives in this area are underway and are also encouraged by the Working Group. Finally, it does not require transmitting entities to include the copyright information as part of their transmission of a work where such information has been included in the work.[575] However, such a proposal deserves further consideration.

The proposal prohibits the falsification, alteration or removal of any copyright management information -- not just that which is included in or digitally linked to the copyrighted work. Many users will obtain such information from public registers, where the integrity of such information will be no less important. The proposal also contains a knowledge requirement; therefore, inadvertent falsification, alteration or removal would not be a violation.[576]

B. PATENT

The present law governing the eligibility of inventions for patent protection and the enforcement of patent rights appears adequate to address the needs of inventors and the public with regard to technology used on the NII. The NII will increase the accessibility and content of the body of prior art, which in turn will affect patentability determinations. The law governing information that properly is considered part of the prior art appears to be

---

[575] While a transmitting entity may not remove the copyright management information, if such information is not included in the normal course of the transmission (such as when a work in digital form is broadcast through analog transmission), no violation would occur.

[576] For criminal liability, both knowledge and the intent to defraud are required.

adequate to address new forms of "printed" publications; however, some issues related to the authenticity, including the date of origination, the contents as originally disclosed, and the extent of dissemination of electronically disseminated publications, deserve further study.

The Working Group recommends that the Patent and Trademark Office obtain public input related to measures that can be adopted to ensure the authenticity of electronically-disseminated publications, particularly with respect to verifying the contents and date of first public dissemination of the publication, and evaluating the substantive value of the information contained in the publication as to its role in patentability determinations.

The Working Group also recommends that the PTO explore the feasibility of establishing requirements or standards that would govern authentication of the date and contents of electronically-disseminated information for purposes of establishing their use as prior art. Such standards would assist in patentability determinations, whether they occur before the PTO or before a court. To develop such standards, the PTO should invite public comment and work with other interested Federal agencies working on authentication standards outside the direct sphere of the patent system.

C. TRADEMARK

The Nice Agreement Concerning the International Classification of Goods and Services for the Purposes of the Registration of Marks must be sufficiently flexible to accommodate the changing goods and services available in connection with the NII and the GII. Such flexibility is essential to the owners of marks identifying goods and services connected with the NII and the GII, as well as to the continued viability of the International Classification system in the electronic information age. Therefore, the Working Group recommends that the Patent and Trademark Office, in the context of WIPO experts meetings on the International Classification system,

propose changes to the International Classification system to ensure that the system reflects the goods and services of modern information technology. Additionally, the Working Group recommends that the Patent and Trademark Office regularly update its *Manual for the Identification of Goods and Services* to reflect new goods and services used on or in connection with the NII and GII.

APPENDICES

1. PROPOSED LEGISLATION
2. STATUTORY MARK-UP
3. PARTICIPATING AGENCIES

104TH CONGRESS
1ST SESSION

[S./H.R.] _____

To amend title 17 to adapt the copyright law to the digital, networked environment of the National Information Infrastructure, and for other purposes.

IN THE [SENATE/HOUSE OF REPRESENTATIVES] OF THE UNITED STATES

September __, 1995

M_. _____ (for h_self and M_. _____) introduced the following bill; which was read twice and referred to the Committee on the Judiciary.

A BILL

To amend title 17 to adapt the copyright law to the digital, networked environment of the National Information Infrastructure, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "NII Copyright Protection Act of 1995".

SEC. 2. TRANSMISSION OF COPIES.

(a) DISTRIBUTION. -- Section 106(3) of title 17, United States Code, is amended by striking "or by rental, lease, or lending" and inserting "by rental, lease, or lending, or by transmission".

(b) DEFINITIONS. -- Section 101 of title 17, United States Code, is amended --

(1) in the definition of "publication" by striking "or by rental, lease, or lending" in the first sentence and insert "by rental, lease, or lending, or by transmission"; and

(2) in the definition of "transmit" by inserting at the end thereof the following: "To 'transmit' a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent.".

(c) IMPORTATION. -- Section 602 of title 17, United States Code, is amended by inserting "whether by carriage of tangible goods or by transmission," after "Importation into the United States,".

SEC. 3. EXEMPTIONS FOR LIBRARIES AND THE VISUALLY IMPAIRED.

(a) LIBRARIES. -- Section 108 of title 17, United States Code, is amended --

(1) in subsection (a) by deleting "one copy or phonorecord" and inserting in lieu thereof "three copies or phonorecords";

(2) in subsection (a) by deleting "such copy or phonorecord" and inserting in lieu thereof "no more than one of such copies or phonorecords";

(3) by inserting at the end of subsection (a)(3) "if such notice appears on the copy or phonorecord that is reproduced under the provisions of this section";

(4) in subsection (b) by inserting "or digital" after "facsimile" and by inserting "in facsimile form" before "for deposit for research use"; and

(5) in subsection (c) by inserting "or digital" after "facsimile".

(b) VISUALLY IMPAIRED -- Title 17, United States Code, is amended by adding the following new section:

"§ 108A. Limitations on exclusive rights: Reproduction for the Visually Impaired.

"Notwithstanding the provision of section 106, it is not an infringement of copyright for a non-profit organization to reproduce and distribute to the visually impaired, at cost, a Braille, large type, audio or other edition of a previously published literary work in a form intended to be perceived by the visually impaired, provided that, during a period of at least one year after the first publication of a standard edition of such work in the United States, the owner of the exclusive right to distribute such work in the United States has not entered

the market for editions intended to be perceived by the visually impaired."

SEC. 4. COPYRIGHT PROTECTION SYSTEMS AND COPYRIGHT MANAGEMENT INFORMATION.

Title 17, United States Code, is amended by adding the following new chapter:

"Chapter 12. -- COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS

"Sec.

"1201. Circumvention of Copyright Protection Systems

"1202. Integrity of Copyright Management Information

"1203. Civil Remedies

"1204. Criminal Offenses and Penalties

"§ 1201. Circumvention of Copyright Protection Systems

"No person shall import, manufacture or distribute any device, product, or component incorporated into a device or product, or offer or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights of the copyright owner under section 106.

"§ 1202. Integrity of Copyright Management Information

"(a) FALSE COPYRIGHT MANAGEMENT INFORMATION. -- No person shall knowingly provide copyright management information that is false, or knowingly publicly distribute or import for public distribution copyright management information that is false.

"(b) REMOVAL OR ALTERATION OF COPYRIGHT MANAGEMENT INFORMATION. -- No person shall, without authority of the copyright owner or the law, (i) knowingly remove or alter any copyright management information, (ii) knowingly distribute or import for distribution copyright management information that has been altered without authority of the copyright owner or the law, or (iii) knowingly distribute or import for distribution copies or phonorecords from which copyright management information has been removed without authority of the copyright owner or the law.

"(c) DEFINITION. -- As used in this chapter, "copyright management information" means the name and other identifying information of the author of a work, the name and other identifying information of the copyright owner, terms and conditions for uses of the work, and such other information as the Register of Copyrights may prescribe by regulation.

"§ 1203. Civil Remedies

"(a) CIVIL ACTIONS. -- Any person injured by a violation of Sec. 1201 or 1202 may bring a civil action in an appropriate United States district court for such violation.

"(b) POWERS OF THE COURT. -- In an action brought under subsection (a), the court --

"(1) may grant temporary and permanent injunctions on such terms as it deems reasonable to prevent or restrain a violation;

"(2) at any time while an action is pending, may order the impounding, on such terms as it deems reasonable, of any device or product that is in the custody or control of the alleged violator and that the court has reasonable cause to believe was involved in a violation;

"(3) may award damages under subsection (c);

"(4) in its discretion may allow the recovery of costs by or against any party other than the United States or an officer thereof;

"(5) in its discretion may award reasonable attorney's fees to the prevailing party; and

"(6) may, as part of a final judgment or decree finding a violation, order the remedial modification or the destruction of any device or product involved in the violation that is in the custody or control of the violator or has been impounded under subsection (2).

"(c) AWARD OF DAMAGES. --

"(1) IN GENERAL. -- Except as otherwise provided in this chapter, a violator is liable for either (i) the actual damages and any additional profits of the violator, as provided by subsection (2) or (ii) statutory damages, as provided by subsection (3).

"(2) ACTUAL DAMAGES. -- The court shall award to the complaining party the actual damages

suffered by him or her as a result of the violation, and any profits of the violator that are attributable to the violation and are not taken into account in computing the actual damages, if the complaining party elects such damages at any time before final judgment is entered.

"(3) STATUTORY DAMAGES. --

"(A) At any time before final judgment is entered, a complaining party may elect to recover an award of statutory damages for each violation of section 1201 in the sum of not less than $200 or more than $2,500 per device, product, offer or performance of service, as the court considers just.

"(B) At any time before final judgment is entered, a complaining party may elect to recover an award of statutory damages for each violation of section 1202 in the sum of not less than $2,500 or more than $25,000.

"(4) REPEATED VIOLATIONS. -- In any case in which the injured party sustains the burden of proving, and the court finds, that a person has violated section 1201 or 1202 within three years after a final judgment was entered against that person for another such violation, the court may increase the award of damages up to triple the amount that would otherwise be awarded, as the court considers just.

"(5) INNOCENT VIOLATIONS. -- The court in its discretion may reduce or remit altogether the total award of damages in any case in which the violator sustains the burden of proving, and the court finds, that the violator was not aware and had no reason to believe that its acts constituted a violation.

"§ 1204. Criminal Offenses and Penalties

"Any person who violates section 1202 with intent to defraud shall be fined not more than $500,000 or imprisoned for not more than 5 years, or both."

SEC. 5. CONFORMING AMENDMENTS.

(a) TABLE OF SECTIONS. -- The table of sections for chapter 1 of title 17, United States Code, is amended by inserting after the item relating to section 108 the following:

"108A. Limitations on exclusive rights: Reproduction for the Visually Impaired."

(b) TABLE OF CHAPTERS. -- The table of chapters for title 17, United States Code, is amended by adding at the end the following:

"12. COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS .....1201".

SEC. 6. EFFECTIVE DATE.

This Act, and the amendments made by this Act, shall take effect on the date of the enactment of this Act.

STATUTORY MARK-UP

Language added by a proposed amendment is in *italics*.
Proposed deletions are indicated by ~~strike-throughs~~.

17 U.S.C. § 106(3)

"(3) to distribute copies or phonorecords of the copyrighted work to the public by sale or other transfer of ownership, ~~or~~ by rental, lease, or lending, *or by transmission*."

17 U.S.C. § 101

"'Publication' is the distribution of copies or phonorecords of a work to the public by sale or other transfer of ownership, ~~or~~ by rental, lease, or lending, *or by transmission*. The offering to distribute copies or phonorecords to a group of persons for purposes of further distribution, public performance, or public display, constitutes publication. A public performance or display of a work does not of itself constitute publication."

"To 'transmit' a performance or display is to communicate it by any device or process whereby images or sounds are received beyond the place from which they are sent. *To 'transmit' a reproduction is to distribute it by any device or process whereby a copy or phonorecord of the work is fixed beyond the place from which it was sent.*"

17 U.S.C. § 108

"(a) Notwithstanding the provisions of section 106, it is not an infringement of copyright for a library or archives, or any of its employees acting within the scope

of their employment, to reproduce no more than ~~one copy or phonorecord~~ *three copies or phonorecords* of a work, or to distribute ~~such copy or phonorecord~~ *no more than one of such copies or phonorecords,* under the conditions specified by this section, if--

"(1) the reproduction or distribution is made without any purpose of direct or indirect commercial advantage;

"(2) the collections of the library or archives are (i) open to the public, or (ii) available not only to researchers affiliated with the library or archives or with the institution of which it is a part, but also to other persons doing research in a specialized field; and

"(3) the reproduction or distribution of the work includes a notice of copyright *if such notice appears on the copy or phonorecord that is reproduced under the provisions of this section.*

"(b) The rights of reproduction and distribution under this section apply to a copy or phonorecord of an unpublished work duplicated in facsimile *or digital* form solely for purposes of preservation and security or *in facsimile form* for deposit for research use in another library or archives of the type described by clause (2) of subsection (a), if the copy or phonorecord reproduced is currently in the collections of the library or archives.

"(c) The right of reproduction under this section applies to a copy or phonorecord of a published work duplicated in facsimile *or digital* form solely for the purpose of replacement of a copy or phonorecord that is damaged, deteriorating, lost, or stolen, if the library or archives has, after a reasonable effort, determined that an unused replacement cannot be obtained at a fair price."

17 U.S.C. § 108A

"§ 108A. Limitations on exclusive rights: Reproduction for the Visually Impaired.

"Notwithstanding the provisions of section 106, it is not an infringement of copyright for a non-profit organization to reproduce and distribute to the visually impaired, at cost, a Braille, large type, audio or other edition of a previously published literary work in a form intended to be perceived by the visually impaired, provided that, during a period of at least one year after the first publication of a standard edition of such work in the United States, the owner of the exclusive right to distribute such work in the United States has not entered the market for editions intended to be perceived by the visually impaired."

17 U.S.C. § 602

"(a) Importation into the United States, *whether by carriage of tangible goods or by transmission,* without the authority of the owner of copyright under this title, of copies or phonorecords of a work that have been acquired outside the United States is an infringement of the exclusive right to distribute copies or phonorecords under section 106, actionable under section 501."

Title 17, Chapter 12

"Chapter 12. -- COPYRIGHT PROTECTION AND MANAGEMENT SYSTEMS

"Sec.

"1201. Circumvention of Copyright Protection Systems

"1202. Integrity of Copyright Management Information

"1203. Civil Remedies

"1204. Criminal Offenses and Penalties

"§ 1201. Circumvention of Copyright Protection Systems

"No person shall import, manufacture or distribute any device, product, or component incorporated into a device or product, or offer or perform any service, the primary purpose or effect of which is to avoid, bypass, remove, deactivate, or otherwise circumvent, without the authority of the copyright owner or the law, any process, treatment, mechanism or system which prevents or inhibits the violation of any of the exclusive rights of the copyright owner under section 106.

"§ 1202. Integrity of Copyright Management Information

"(a) FALSE COPYRIGHT MANAGEMENT INFORMATION. -- No person shall knowingly provide copyright management information that is false, or knowingly publicly distribute or import for public distribution copyright management information that is false.

"(b) REMOVAL OR ALTERATION OF COPYRIGHT MANAGEMENT INFORMATION. -- No person shall, without authority of the copyright owner or the law, (i) knowingly remove or alter any copyright management information, (ii) knowingly distribute or import for distribution copyright management information that has been altered without authority of the copyright owner or the law, or (iii) knowingly distribute or import for distribution copies or phonorecords from which copyright management information has been removed without authority of the copyright owner or the law.

"(c) DEFINITION. -- As used in this chapter, "copyright management information" means the name and other identifying information of the author of a work, the name and other identifying information of the copyright owner, terms and conditions for uses of the work, and such other information as the Register of Copyrights may prescribe by regulation.

"§ 1203. Civil Remedies

"(a) CIVIL ACTIONS. -- Any person injured by a violation of Sec. 1201 or 1202 may bring a civil action in an appropriate United States district court for such violation.

"(b) POWERS OF THE COURT. -- In an action brought under subsection (a), the court --

"(1) may grant temporary and permanent injunctions on such terms as it deems reasonable to prevent or restrain a violation;

"(2) at any time while an action is pending, may order the impounding, on such terms as it deems reasonable, of any device or product that is in the custody or control of the alleged violator and that the court has reasonable cause to believe was involved in a violation;

"(3) may award damages under subsection (c);

"(4) in its discretion may allow the recovery of costs by or against any party other than the United States or an officer thereof;

"(5) in its discretion may award reasonable attorney's fees to the prevailing party; and

"(6) may, as part of a final judgment or decree finding a violation, order the remedial modification or the destruction of any device or product involved in the violation that is in the custody or control of the violator or has been impounded under subsection (2).

"(c) AWARD OF DAMAGES. --

"(1) IN GENERAL. -- Except as otherwise provided in this chapter, a violator is liable for either (i) the actual damages and any additional profits of the violator, as

provided by subsection (2) or (ii) statutory damages, as provided by subsection (3).

"(2) ACTUAL DAMAGES. -- The court shall award to the complaining party the actual damages suffered by him or her as a result of the violation, and any profits of the violator that are attributable to the violation and are not taken into account in computing the actual damages, if the complaining party elects such damages at any time before final judgment is entered.

"(3) STATUTORY DAMAGES. --

"(A) At any time before final judgment is entered, a complaining party may elect to recover an award of statutory damages for each violation of section 1201 in the sum of not less than $200 or more than $2,500 per device, product, offer or performance of service, as the court considers just.

"(B) At any time before final judgment is entered, a complaining party may elect to recover an award of statutory damages for each violation of section 1202 in the sum of not less than $2,500 or more than $25,000.

"(4) REPEATED VIOLATIONS. -- In any case in which the injured party sustains the burden of proving, and the court finds, that a person has violated section 1201 or 1202 within three years after a final judgment was entered against that person for another such violation, the court may increase the award of damages up to triple the amount that would otherwise be awarded, as the court considers just.

"(5) INNOCENT VIOLATIONS. -- The court in its discretion may reduce or remit altogether the total award of damages in any case in which the violator sustains the burden of proving, and the court finds, that the violator

was not aware and had no reason to believe that its acts constituted a violation.

"§ 1204. Criminal Offenses and Penalties

"Any person who violates section 1202 with intent to defraud shall be fined not more than $500,000 or imprisoned for not more than 5 years, or both."

PARTICIPATING AGENCIES

ADVANCED RESEARCH PROJECTS AGENCY
COUNCIL OF ECONOMIC ADVISERS
ENVIRONMENTAL PROTECTION AGENCY
GENERAL SERVICES ADMINISTRATION
NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NATIONAL ECONOMIC COUNCIL
NATIONAL ENDOWMENT FOR THE ARTS
NATIONAL ENDOWMENT FOR THE HUMANITIES
NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY
NATIONAL LIBRARY OF MEDICINE
NATIONAL SCIENCE FOUNDATION
NATIONAL SECURITY AGENCY
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION
OFFICE OF SCIENCE AND TECHNOLOGY POLICY
OFFICE OF CONSUMER AFFAIRS
OFFICE OF MANAGEMENT AND BUDGET
OFFICE OF THE U.S. TRADE REPRESENTATIVE
U.S. COPYRIGHT OFFICE
U.S. DEPARTMENT OF COMMERCE
U.S. DEPARTMENT OF DEFENSE
U.S. DEPARTMENT OF EDUCATION
U.S. DEPARTMENT OF ENERGY
U.S. DEPARTMENT OF JUSTICE
U.S. DEPARTMENT OF STATE
U.S. DEPARTMENT OF TREASURY
U.S. PATENT AND TRADEMARK OFFICE